U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-258 861

MODEL STATE INFORMATION SYSTEM FOR THE SAFE DRINKING WATER PROGRAM

VOLUME II: EXHIBITS. DEFINITION OF SYSTEMS REQUIREMENTS

AMERICAN MANAGEMENT SYSTEMS, INCORPORATED
ARLINGTON, VIRGINIA

PREPARED FOR
ENVIRONMENTAL PROTECTION AGENCY,
WASHINGTON, D.C.

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MODEL STATE INFORMATION SYSTEM

For The

SAFE DRINKING WATER PROGRAM

VOLUME II: EXHIBITS

DEFINITION OF SYSTEM REQUIREMENTS

June 15 1976

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SPRINGFIELD, VA. 22161

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Abstract

The Model State Information System (MSIS) is a computer-based information system which can be utilized by individual States and/or EPA Regions to perform the minimum data management functions mandated by the Safe Drinking Water Act of 1974 (PL 93-523).

Three major documents were produced by American Management Systems, Inc., for EPA outlining the basic concepts of an informational data management system to meet the water quality monitoring and reporting requirements of the Act. These include:

(Document 1) Feasibility Study for Development and Implementation of a Model State Information System for EPA's Safe Drinking Water Program. June 15, 1976

(Document 2) Introduction to the Model State Information System (MSIS). June 15, 1976

(Document 3) Model State Information System for Safe Drinking Water Program. June 15, 1976. 3 volumes

The South Western Ohio Regional Computer Center (SWORCC) has been engaged by EPA to perform the detailed system design, programming, testing, and documentation of the MSIS. The detailed development phase is currently underway, and all work should be completed by early March 1977.

The MSIS consists of eight subsystems: (1) Public Water Supply Inventory; (2) Water Quality Compliance; (3) Regulations; (4) Federal Reporting; (5) Variances and Exemptions; (6) Enforcement Actions; (7) Sanitary Survey; and (8) Operator and Mailing.

The first four subsystems comprise the basic package, which is required if any portion of the MSIS is to be used. States may select the base package and one or more optional sub-systems, depending on their volume of data and individual needs.

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I. INPUT FORMS

EXHIBIT I.1

-TER —LIT— -)MPL—+ CE ⁝ YST

SAMPLES DELETION FORM

PWS-ID								SAMPLE KEY									CONTAMINANT-ID			
1-7							14-15	16-24									25-28			
							D T													
							D T													
							D T													
							D T													
							D T													
							D T													
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							D T													

PREPARED BY: _____ DATE __/__/__

AUTHORIZED BY: _____ DATE __/__/__

WATER QUALITY COMPLIANCE SUBSYSTEM

VIOLATIONS REPORTING FORM

VIOLATIONS IDENTIFICATION [ ] 1--5

[Ø Ø / Ø 1] 6--7

PWS IDENTIFICATION [ ] 8--14

VIOLATION MONTH DAY YEAR [ ] 15-20

CONTAMINANT IDENTIFICATION [ ] 21-24

VIOLATION TYPE [ ] 25

LABORATORY OWNER CODE [ ] 26

LABORATORY ID [ ] 27-31

DURATION [ ] 32-34

REMARKS [ ] 35-59

ANALYSIS METHOD [ ] 60-62

ANALYSIS RESULT [ ] 63-68

[ ] 69-70 VIOLATION BY FEDERAL OR STATE REGULATIONS? (FP,FS,SP,SS)

SAMPLES REQUIRED [ ] 71-74 RECEIVED [ ] 75-78

EXHIBIT I.2

PREPARED BY _____ DATE _/_/_

APPROVED BY _____ DATE _/_/_

CHEMICAL CONTAMINANT REGULATIONS INPUT FORM

CONTAMINANT-ID NUMBER [ ][ ][ ][ ] 1-4

CHEMICAL NAME [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ] 5-14

STATE/FEDERAL [ ][ ] 15-16

REASON FOR MONITORING [ ] 17

H-HEALTH
T-TASTE
O-ODOR
C-COLOR

MCL [ ][ ][ ][ ][ ][ ] 18-23

UNITS [ ][ ][ ][ ][ ][ ] 24-29

MCL DECIMALS [ ] 30

REASONABLE BOUNDS
LOWER [ ][ ][ ][ ][ ][ ] 31-36
HIGHER [ ][ ][ ][ ][ ][ ] 37-42

NUMBER OF CHECK SAMPLES FOR COMPUTING AVERAGE IF REGULAR SAMPLE DOES NOT COMPLY [ ] 43

SEASONAL SAMPLING [ ] 44

SPECIAL COMPUTATION [ ] 45

0-NO
1-AIR TEMPERATURE

PERIOD WITHIN WHICH CHECK SAMPLES MUST BE MADE (IN DAYS) [ ][ ] 46 47

MONITORING REQUIREMENTS

PWS TYPE	EFFECTIVE DATE	SOURCE TYPE	YRS. TO 1ST SAMPLE	SAMPLING FREQUENCY (DAYS)
COMMUNITY	[ ][ ][ ][ ][ ][ ] 48-53	GROUND	[ ] 54	[ ][ ][ ][ ] 55-58
		SURFACE	[ ] 59	[ ][ ][ ][ ] 60-63
NON-COMMUNITY	[ ][ ][ ][ ][ ][ ] 64-69	GROUND	[ ] 70	[ ][ ][ ][ ] 71-74
		SURFACE	[ ] 75	[ ][ ][ ][ ] 76-79

PREPARED BY: _____ DATE __/__/__

APPROVED BY: _____ DATE __/__/__

EXHIBIT I.3a

BACTERIOLOGICAL CONTAMINANTS REGULATIONS INPUT FORM

3	Ø	1	Ø

1-4

C	O	L	I	F	O	R	M

5-12

STATE/FEDERAL: [ ] 13-14

EFFECTIVE DATE: MONTH DAY YEAR [ ] 15-20

ANALYSIS METHOD	UNIT	MCL FOR SINGLE SAMPLE	MCL FOR MONTHLY AVERAGE	PERCENT OF SAMPLES	MCL FOR PERCENT
MEMBRANE FILTER	COLIFORM	[ ] 21-22	[ ] 23-24	[ ] 25-26	[ ] 27-28
FERMENTATION TUBE 10mm	POSITIVE TUBES	[ ] 29-30	[ ] 31-32	[ ] 33-34	[ ] 35-36
FERMENTATION TUBE 100mm	POSITIVE TUBES	[ ] 37-38	[ ] 39-40	[ ] 41-42	[ ] 43-44

EXHIBIT I.3b

CHLORINE RESIDUAL METHOD:

NUMBER OF SAMPLES IN LIEU OF ONE REGULAR SAMPLE: [ ] 45-46

PERCENT OF REGULAR SAMPLES: [ ] 47-48

MINIMUM CHLORINE LEVEL [ ] 49-50

NON-COMMUNITY PWS MONITORING FREQUENCY:

EFFECTIVE DATE: [ ] 51-56

PERIOD: [ ] 58 (M-MONTH, Q-QUARTER)

SEASONAL SAMPLING: [ ] 57 (Y OR N)

NUMBER OF SAMPLES PER PERIOD: [ ] 59-60

PREPARED BY: _____ DATE __/__/__

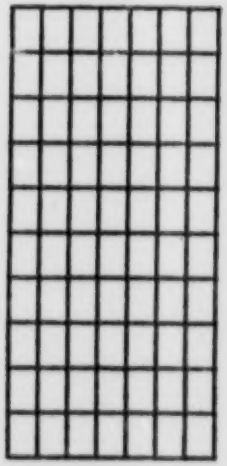
APPROVED BY: _____ DATE __/__/__

BACTERIOLOGICAL MONITORING FREQUENCY INPUT FORM

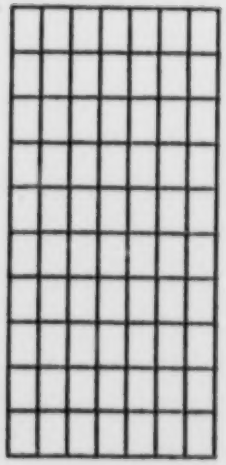
PAGE ____ OF ____

3 Ø 1 Ø (1-4) 9 (5) STATE/FEDERAL ☐☐ (15-16)

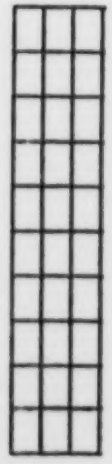
POPULATION LOWER LIMIT (17-23)



POPULATION UPPER LIMIT (24-30)



MINIMUM SAMPLES PER MONTH (31-33)



PREPARED BY _____ DATE __/__/__

APPROVED BY _____ DATE __/__/__

EXHIBIT I.3c

TURBIDITY REGULATION INPUT FORM

CONTAMINANT-ID: [0][0][1][0] (1-4)

[T][U][R][B][I][D][I][T][Y] (5-13)

STATE/FEDERAL: [ ][ ] (14-15)

MCL FOR MONTHLY AVERAGE: [ ][ ] (17-18)

MCL FOR CONSECUTIVE SAMPLES: [ ][ ] (19-20)

NUMBER OF CONSECUTIVE SAMPLES: [ ][ ] (21-22)

EFFECTIVE DATE

MONTH DAY YEAR: [ ][ ][ ][ ][ ][ ] (23-28)

APPLY TO SURFACE ONLY? [ ] (Y OR N) (29)

ARE REPEAT SAMPLES TO BE INCLUDED IN AVERAGE? [ ] (Y OR N) (30)

FREQUENCY OF MONITORING (DAYS):

COMMUNITY PWS: [ ][ ][ ] (31-33)

NON-COMMUNITY PWS: [ ][ ][ ] (34-36)

PREPARED BY _____ DATE __/__/__

APPROVED BY _____ DATE __/__/__

EXHIBIT I.3d

VARIANCES AND EXEMPTIONS SUBSYSTEM
RECORD CREATION AND MAINTENANCE FORM

IDENTIFICTION ☐☐☐☐☐ (1-5) ØØ (6 7) ☐ CHECK IF INITIAL CREATION

Ø1	PWS-ID	V/E	REFERENCE	EFFECTIVE DATE	EXPIRATION DATE	REASON	STATUS	CONTAMINANT-ID	MCL	TRE MEN
6-7	8-14	15	16-20	21-26	27-32	33-34	35	36-39	40-45	46-

ALTERNATE TREATMENT ☐☐☐ (49-51)

ABSTRACT

Ø2	
Ø3	
Ø4	
Ø5	
Ø6	
Ø7	
Ø8	
Ø9	
1Ø	
11	

6-7 8-56

EXHIBIT I.4a

PREPARED BY _____ DATE __/__/__

APPROVED BY _____ DATE __/__/__

VARIANCES AND EXEMPTIONS SUBSYSTEM

COMPLIANCE SCHEDULE MILESTONE MAINTENANCE FORM

1. CREATION AND MAINTENANCE

V & E IDENTIFICATION [ ][ ][ ][ ][ ] (1-5) [20] (6-7) TARGET DATE [ ][ ][ ][ ][ ][ ] (8-13) MILESTONE CODE: [ ] (14) REPORTING FREQUENCY FOR REPEATING MILESTONES (MONTHS) [ ][ ] (15-16)

DUP 1-5 [21] [22] [23] (6-7) DUP 8-14 DESCRIPTION [ ] (15-63)

2. ACTUAL DATE REPORTING

V & E IDENTIFICATION [ ][ ][ ][ ][ ] (1-5) [24] (6-7) TARGET DATE [ ][ ][ ][ ][ ][ ] (8-13) ACTUAL DATE [ ][ ][ ][ ][ ][ ] (14-19) [ ] (20) REASON FOR DELAY (IF ANY)

3. DELETION OF A MILESTONE

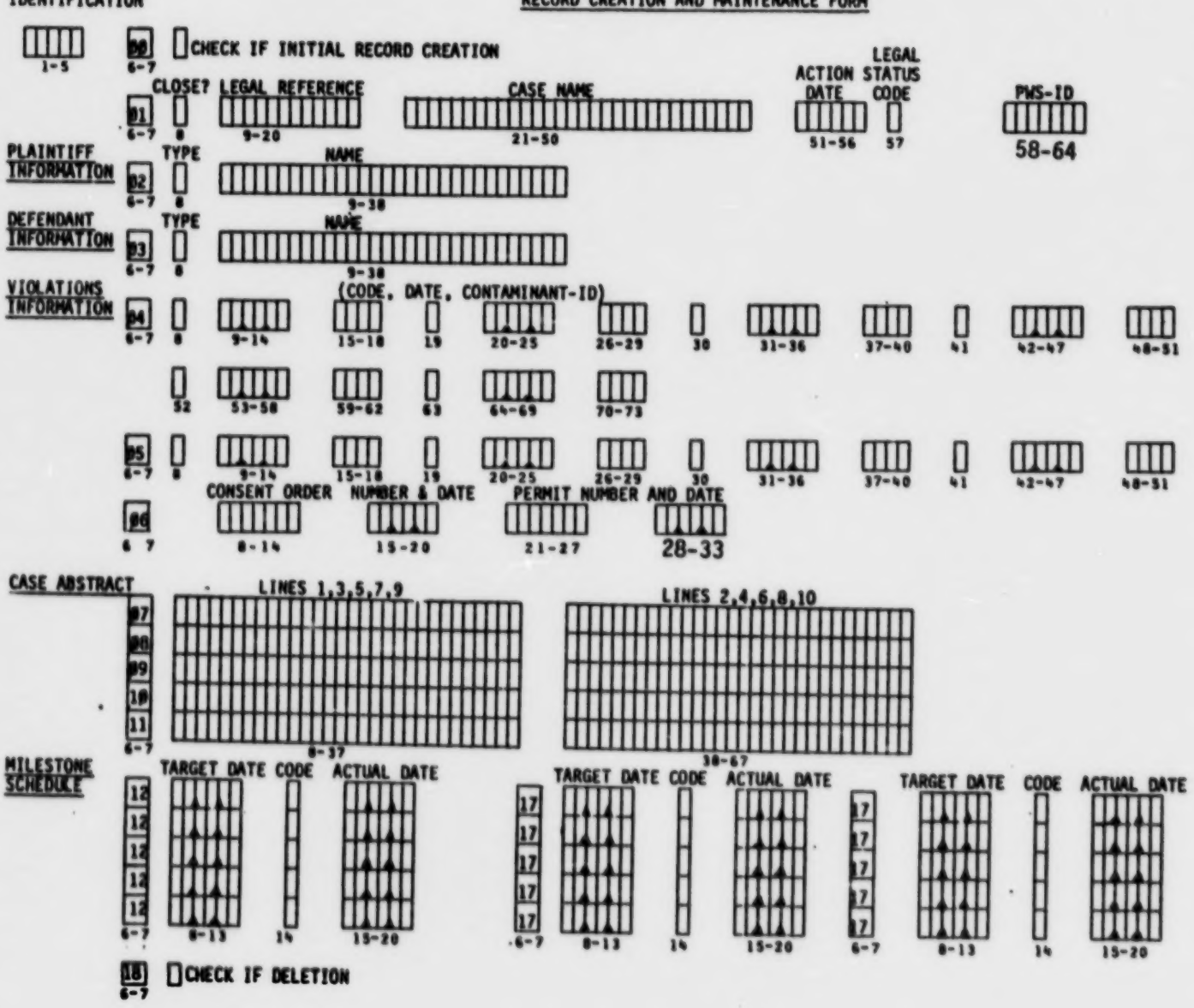
V & E IDENTIFICATION [ ][ ][ ][ ][ ] (1-5) [25] (6-7) TARGET DATE [ ][ ][ ][ ][ ][ ] (8-13) MILESTONE CODE [ ] (14)

PREPARED BY _____ DATE __/__/__

APPROVED BY _____ DATE __/__/__

EXHIBIT I.4b

ENFORCEMENT ACTIONS SUBSYSTEM
RECORD CREATION AND MAINTENANCE FORM



PREPARED BY: _____ DATE __/__/__

LABORATORY TABLE INPUT FORM

LAB-ID (1-5) | H (6) | OWNER TYPE (7) | LABORATORY NAME (8-37) | EXPIRATION DATE (38-43)

6	7	METHOD 8-10	METHOD 11-13	METHOD 14-16	METHOD 17-19	METHOD 20-22	METHOD 23-25	METHOD 26-28	METHOD 29-31	METHOD 32-34	METHOD 35-37	METHOD 38-40	METHOD 41-43	METHOD 44-46	METHOD 47-49	METHOD 50-52	METHOD 53-55	METHOD 56-58	METHOD 59-61	METHOD 62-64	METHOD 65-67	METHOD 68-70	METHOD 71-73	METHOD 74-76	METHOD 77-79
T	0																								
T	1																								
T	2																								
T	3																								
T	4																								
T	9																								

EXHIBIT 1.6

PREPARED BY _____ DATE __/__/__

AUTHORIZED BY _____ DATE __/__/__

OPERATOR AND MAILING SUBSYSTEM

1. CREATION AND MAINTENANCE OF AN OPERATOR RECORD

OPERATOR IDENTIFICATION (1-5) | 00 (6-7) | ☐ CHECK IF INITIAL CREATION OF AN OPERATOR RECORD

01 (6-7)	TYPE 0 (8)	NAME (9-38)	ADDRESS (STREET) (39-68)	
02 (6-7)	0 (8)	ADDRESS (CITY) (9-38)	STATE (39-40)	ZIP (41-45)
		AREA / TELEPHONE (46-55)		
03 (6-7)	CERTIFICATE NUMBER (9-15)	PMS - ID (16-22)	CLASSES A (23) B (24) C (25) D (26) E (27) F (28)	RENEWAL DATE (29-34)

2. DELETION

OPERATOR IDENTIFICATION (1-5) | 09 (6-7) | ☐ CHECK IF DELETION

PREPARED BY _____ DATE _/_/_

APPROVED BY _____ DATE _/_/_

OPERATOR AND ADDRESSEE SUBSYSTEM

RECORD CREATION AND MAINTENANCE FORM

1. CREATION AND MAINTENANCE OF AN ADDRESSEE RECORD

ADDRESSEE IDENFICATION (1-5) | 09 (6-7) ADDRESSEE | ☐ CHECK IF INITIAL CREATION

	TYPE	NAME	ADDRESS (STREET)
01 (6-7)	(8)	(9-38)	(39-68)

	ADDRESS (CITY)	STATE	ZIP	AREA	TELEPHONE	
02 (6-7) (8)	(9-38)	(39-40)	(41-45)		(46-55)	

2: DELETION

ADDRESSEE IDENTIFICATION (1-5) | 09 (6-7) | ☐ CHECK IF DELETION

PREPARED BY _____ DATE _/_/__

APPROVED BY _____ DATE _/_/__

EXHIBIT 1.8

II. RECORDS DESCRIPTION

MSIS

MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.1

SUBSYSTEM: ALL EXCEPT PWS INVENTORY	DATE: 12 / 08 / 75 REVISION DATE: 4 / 15 / 76 REVISION NO.: 1	PAGE 1 OF 1
FILE NAME: MSIS HISTORY FILE		FILE ID:
RECORDS NAME: UPDATE RECORD	RECORD SIZE: 79	RECORD ACCESS KEY: FILE-ID, RECORD-ID / RECORD TYPE: F

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	UPDATE-RECORD								
03	FILE-ID	INDICATING WHICH MSIS FILE WAS UPDATED	001	A/N	X(1)			1	1
03	RECORD-ID	IDENTIFICATION OF THE RECORD THAT WAS UPDATED	002	N	9(5)			2	6
03	LAST-UPDATE	OF UPDATED RECORD, JULIAN FORMAT	003	N	9(5)			7	11
03	UPDATE-DATE	JULIAN FORMAT	004	N	9(5)			12	16
03	DATE-ELEMENT-CODE	CODE OF DATA ELEMENT WITHIN THE RELATED DATA ELEMENTS TABLE	005	N	9(3)			17	19
03	OLD-VALUE	OF UPDATED DATA ELEMENT	006	A/N	X(30)			20	49
03	NEW-VALUE	OF UPDATED DATA ELEMENT	165	A/N	X(30)			50	79

MSIS

MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.2

SUBSYSTEM: PUBLIC WATER SYSTEM INVENTORY	DATE: 12 / 08 / 75 REVISION DATE: 4 / 15 / 76 REVISION NO.: 1	PAGE 1 OF 10

FILE NAME: PUBLIC WATER SYSTEM INVENTORY FILE	FILE ID: PWSIF

RECORDS NAME: PWS RECORD	RECORD SIZE: 589 to 1429 PLUS 4 (LENGTH)	RECORD ACCESS KEY: PWS-ID	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	PWS-RECORD								
03	PWS-ID	IDENTIFICATION NUMBER	007	N	9(7)			1	7
03	PWS STATE	POSTAL STATE CODE	008	A/N	X(2)			8	9
03	PWS-NAME		009	A/N	X(30)			10	39
03	PWS-ADDRESS							40	106
05	ADDRESS-LINE-1	STREET	010	A/N	X(30)			40	69
05	ADDRESS-LINE-2	CITY	011	A/N	X(30)			70	99
05	STATE	POSTAL STATE CODE	013	A/N	X(2)			100	101
05	ZIP	ZIP CODE	014	N	9(5)			102	106
03	PWS-PHONE							107	116
05	AREA-CODE		015	N	9(3)			107	109
05	PHONE-NUM		016	N	9(7)			110	116
03	PLANT-LOCATION		029					117	183

MODEL STATE INFORMATION SYSTEM

RECORD DEFINITION

EXHIBIT II.2

SUBSYSTEM: PUBLIC WATER SYSTEM INVENTORY	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 2 OF 10
FILE NAME: PUBLIC WATER SYSTEM INVENTORY FILE		FILE ID: PWSIF

RECORDS NAME: PWS RECORD	RECORD SIZE: 589 to 1429 PLUS 4 (LENGTH)	RECORD ACCESS KEY: PWS-ID	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
05	ADDRESS-LINE-1		Ø1Ø	A/N	X(30)			117	146
05	ADDRESS-LINE-2		Ø11	A/N	X(30)			147	176
05	STATE		Ø13	A/N	X(2)			177	178
05	ZIP		Ø14	N	9(5)			179	183
03	AREA-LOCATION	SERVICE AREA LOCATION	134					184	201
05	CITY	NAME OF CITY OR LOCALITY	1Ø4	A/N	X(15)			184	198
05	COUNTY	COUNTY CODE	1Ø5	N	9(3)			199	201
03	INDIAN-RESERVATION	CODE INDICATION INDIAN RESERVATION	1Ø6	N	9(3)			202	204
03	SERVICE AREA	19 DIFFERENT CHARACTERISTICS,0=NO, 1=YES	Ø25					205	223
05	COMMUNITY			N	9(1)			205	205
05	COMPANY-TOWN			N	9(1)			206	206
Ø5	RECREATION			N	9(1)			207	207
Ø5	MOBILE-HOMES			N	9(1)			208	208

AMS

MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.2

SUBSYSTEM: PUBLIC WATER SYSTEM INVENTORY	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 3 OF 10
FILE NAME: PUBLIC WATER SYSTEM INVENTORY FILE		FILE ID: PWSIF
RECORDS NAME: PWS RECORD	RECORD SIZE: 589 to 1429 PLUS 4 (LENGTH)	RECORD ACCESS KEY: PWS-ID / RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
Ø5	INSTITUTION			N	9(1)			209	209
Ø5	SCHOOL			N	9(1)			210	210
Ø5	MOTEL			N	9(1)			211	211
Ø5	RESTAURANT			N	9(1)			212	212
Ø5	SERVICE-STATION			N	9(1)			213	213
Ø5	CAMPGROUND			N	9(1)			214	214
Ø5	PICNIC-AREA			N	9(1)			215	215
Ø5	LODGE			N	9(1)			216	216
Ø5	MARINA			N	9(1)			217	217
Ø5	SKI-RESORT			N	9(1)			218	218
Ø5	BATHING			N	9(1)			219	219
Ø5	VISITOR-CENTER			N	9(1)			220	220
Ø5	HIGHWAY-REST-AREA			N	9(1)			221	221
Ø5	AIRPORT			N	9(1)			222	222

MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.2

SUBSYSTEM: PUBLIC WATER SYSTEM INVENTORY	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 4 OF 10
FILE NAME: PUBLIC WATER SYSTEM INVENTORY FILE		FILE ID: PWSIF

RECORDS NAME: PWS RECORD	RECORD SIZE: 589 to 1429 PLUS 4(LENGTH)	RECORD ACCESS KEY: PWS-ID	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
Ø5	OTHER			N	9(1)			223	223
Ø3	REGULATE-BY	THE LEGAL AUTHORITY TO REGULATE THE PWS	017	A/N	X(1)			224	224
Ø3	REGION	STATE'S REGION RESPONSIBLE FOR REGULATING	018	A/N	X(2)			225	226
Ø3	DISTRICT	STATE'S DISTRICT RESPONSIBLE FOR REGULATION	019	A/N	X(3)			227	229
Ø3	PWS-OWNER-TYPE		020	A/N	X(1)			230	230
Ø3	INTERSTATE-CARRIER	1 = YES; Ø = NO	107	N	9(1)			231	231
Ø3	PWS-TYPE	COMMUNITY = C NON-COMMUNITY = N	Ø31	A/N	X(1)			232	232
Ø3	ACTIVITY-INDICATOR	1 = YES; Ø = NO	Ø32	N	9(1)			233	233
Ø3	DEACTIVATION-DATE	JULIAN FORMAT	Ø33	N	9(5)			234	238
Ø3	DEACTIVIATION-REASON		Ø34	A/N	X(1)			239	239
Ø3	LAST-SURVEY-DATE	JULIAN FORMAT	Ø79	N	9(5)			240	244
Ø3	COMPLIANCE-CYCLE		Ø37	N	9(2)			245	246
Ø3	CONSECUTIVE	Ø = NO; 1 = YES;	Ø38	N	9(1)			247	247
Ø3	SELLER-ID	PWS-ID OF THE SELLER	1Ø3	N	9(7)			248	254

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MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.2

SUBSYSTEM: PUBLIC WATER SYSTEM INVENTORY	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 5 OF 10
FILE NAME: PUBLIC WATER SYSTEM INVENTORY FILE		FILE ID: PWSIF
RECORDS NAME: PWS RECORD	RECORD SIZE: 589 to 1429 PLUS 4 (LENGTH)	RECORD ACCESS KEY: PWS-ID	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
03	SELLER-WATER	WATER TYPE OF SELLER. G-ground, S- surface.	108	A/N	X(1)			255	255
03	BEGIN-DATE	DATE PWS STARTED OPERATIONS, MONTH AND YEAR	109	N	9(4)			256	259
03	MANUAL-FILE	REFERENCE TO MANUAL FILES AND DOCUMENTS	111	A/N	X(12)			260	271
03	REPORTING-BACTI.	HOW PWS REPORTS BACTERIOLOGICAL SAMPLES	169					272	272
05	REPORTING-FLAG	S = SUMMARY, L = LIST, I = INDIVIDUAL, SPACE	112	A/N	X(1)			272	272
03	REPORTING-TURB	HOW PWS REPORTS TURBIDITY SAMPLES	170					273	273
05	REPORTING-FLAG	S = SUMMARY, L = LIST, SPACE	112	A/N	X(1)			273	273
03	OPERATING-REPORT							274	278
05	REPORT-REQUIRED	1 = YES, 0 = NO	171	N	9(1)			274	274
05	LAST-REPORT	DATE OF LAST REPORT, MONTH AND YEAR	172	N	9(4)			275	278
03	POP-SERVED		021	N	9(9)			279	287
03	SERVICES-NUM		022	N	9(7)			288	294
03	METERS-NUM		023	N	9(7)			295	301
03	AIR-TEMPERATURE		086	N	9(2)V9			302	304

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RECORD DEFINITION EXHIBIT 4.1.2

SUBSYSTEM: PUBLIC WATER SYSTEM INVENTORY	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 6 OF 10
FILE NAME: PUBLIC WATER SYSTEM INVENTORY FILE		FILE ID: PWSIF
RECORDS NAME: PWS RECORD	RECORD SIZE: 589 to 1429	RECORD ACCESS KEY: PWS-ID / RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
03	CONSECUTIVE-NUM	NUMBER OF CONSECUTIVE PWSs	024	N	9(7)			305	311
03	AVERAGE-CAPACITY	IN GALLONS PER DAY	026	N	9(10)			312	321
03	DESIGN-CAPACITY	IN GALLONS PER DAY	067	N	9(10)			322	331
03	EMERGENCY-POWER	G/D	027	N	9(10)			332	341
03	STORAGE-CAPACITY	Gallons	028	N	9(10)			342	351
03	MAX-PRODUCTION	G/D	030	N	9(10)			352	361
03	LAB-CONTROL	Ø = NO; 1 = YES	Ø62					362	365
05	CHEMICAL			N	9(1)			362	362
05	BACTERIOLOGICAL			N	9(1)			363	363
05	PHYSICAL			N	9(1)			364	364
05	RADIOLOGICAL			N	9(1)			365	365
03	LAB-USED	REPEAT 5 TIMES FOR : BACTERIOLOGICAL, INORGANIC, ORGANIC, RADIOLOGICAL, PHYSICAL IN THAT ORDER				5		366	395
05	LAB-ID		Ø84	N	9(5)				
05	CAPTIVE-FLAG	0 = NO, 1 = YES	119	N	9(1)				
03	STATE-DISCRETION					19		395	441

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MODEL STATE INFORMATION SYSTEM
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EXHIBIT II.2

SUBSYSTEM: PUBLIC WATER SYSTEM INVENTORY	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 7 OF 10
FILE NAME: PUBLIC WATER SYSTEM INVENTORY FILE		FILE ID: PWSIF
RECORDS NAME: PWS RECORD	RECORD SIZE: 589 to 1429 PLUS 4 (LENGTH)	RECORD ACCESS KEY: PWS-ID	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
05	BACTERIOLOGICAL							395	412
07	MONTHLY	0 = NO; 1 = YES; MONTHLY MONITORING REQUIRED INSTEAD OF QUARTERLY	039	N	9(1)			395	396
07	PER-QUARTER	NUMBER OF SAMPLES PER QUARTER IN LIEU OF MONTHLY FOR SMALL COMMUNITY PWS USING GROUND WATER	040	N	9(3)			396	399
07	SEASON-START	MONTH AND DAY (MMDD)	041	N	9(4)			400	403
07	SEASON-END	MONTH AND DAY (MMDD)	042	N	9(4)			404	407
07	NON-COMM-FREQ	FREQUENCY OF SAMPLING NON-COMMUNITY PWS IN DAYS	043	N	9(3)			408	410
07	CHLORINE	PERCENT OF SAMPLES THAT MAY BE REPLACED BY CHLORINE RESIDUAL	044	N	9(2)			411	412
05	TURBIDITY-UNITS	2 TO 5 INSTEAD OF THE MCL OF 1	045	N	9(1)V9(1)			413	414
05	ALL-CHEMICALS							415	428
07	FOLLOW-UP MONITOR	REPEATING 2 TIMES. FOLLOW-UP OF MONITORING AFTER A PUBLIC NOTIFICATION BECAUSE OF MCL VIOLATION				2		415	428
09	CONTAMINANT-ID		046	N	9(4)				
09	SAMPLING FREQUENCY	DAYS, 7 - WEEKLY, 30 - MONTHLY, etc.	047	N	9(3)				
07	ORGANIC							429	437
09	START-PERIOD	MONTH AND DAY	048	N	9(4)	20		429	432

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EXHIBIT II.2

SUBSYSTEM: PUBLIC WATER SYSTEM INVENTORY	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 8 OF 10
FILE NAME: PUBLIC WATER SYSTEM INVENTORY FILE		FILE ID: PWSIF

RECORDS NAME: PWS RECORD	RECORD SIZE: 589 to 1429 PLUS 4(LENGTH)	RECORD ACCESS KEY: PWS-ID	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
09	END-PERIOD	MONTH AND DAY	049	N	9(4)			433	436
09	NO-SAMPLING	IF STATE APPROVE, FOR GROUND WATER ONLY (0,1)	050	N	9(1)			437	437
07	INORGANIC							437	441
09	NITRATE-FREQ	FREQUENCY OF SAMPLING FOR NITRATE, AFTER INITIAL TEST. NON-COMMUNITY PWS ONLY	051	N	9(4)			437	441
05	RADIOACTIVE	RADIOACTIVE MONITORING FLAG.						442	443
07	RADIOACTIVE-MONITORING		173	A/N	X(1)			442	443
03	LAST-UPDATE	LAST UPDATE DATE (Julian Format)	003	N	9(5)			443	446
03	RESERVE		052	A/N	X(20)			447	466
03	RESERVE-FOR-STATE		053	A/N	X(100)			467	566
03	V-AND-E	REPEATS 2 TIMES	054			2		567	586
05	CONTAMINANT-ID	RELATED CONTAMINANT-ID	046	N	9(4)				
05	MCL	MODIFIED MCL	055	N	9(6)				
03	SOURCES-NUM	NUMBER OF SOURCES UP TO 15	056	N	9(2)			587	588

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EXHIBIT II.2

SUBSYSTEM: PUBLIC WATER SYSTEM INVENTORY	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 9 OF 10
FILE NAME: PUBLIC WATER SYSTEM INVENTORY FILE		FILE ID: PWSIF
RECORDS NAME: PWS RECORD	RECORD SIZE: 589 to 1429 PLUS 4 (LENGTH	RECORD ACCESS KEY: PWS-ID / RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
03	SOURCE-INFO	REPEATING GROUP. UP TO 15 TIMES				15		590	1429
05	SOURCE-NAME		Ø57	A/N	X(15)				
05	SOURCE-CODE	S=SURFACE, G-GROUND, P=PURCHASED	060	A/N	X(1)				
05	NUMBER-OF-WELLS	WHEN WELLS ARE GROUPED TO ONE SOURCE	174	N	9(2)				
05	AVAILABILITY	P=PERMANENT, R=SEASONAL, S=STANDBY, E=EMERGENCY	175	A/N	X(1)				
05	BASIN-NUMBER		176	N	9(7)				
05	LATITUDE	DEGREES,MINUTES, SECONDS	058	N	9(7)				
05	LONGITUDE	DEGREES, MINUTES, SECONDS	059	N	9(7)				
05	TREATMENTS	16 POSSIBLE TREATMENT METHODS; Ø = NO; 1 = YES	61			13			
Ø7	AERATION			N	9(1)				
Ø7	PRECHLORINATION			N	9(1)				
Ø7	COAGULATION			N	9(1)				
Ø7	SEDIMENTATION			N	9(1)				

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EXHIBIT II.2

SUBSYSTEM: PUBLIC WATER SYSTEM INVENTORY	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 10 OF 10

FILE NAME: PUBLIC WATER SYSTEM INVENTORY FILE	FILE ID: PWSIF

RECORDS NAME: PWS RECORD	RECORD SIZE: 589 to 1429 PLUS 4 (LENGTH)	RECORD ACCESS KEY: PWS-ID	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
07	FILTRATION			N	9(1)				
07	CORROSION-CNTL			N	9(1)				
07	SOFTENING			N	9(1)				
07	TASTE-ODOR			N	9(1)				
07	IRON-REMOVAL			N	9(1)				
07	AMMONIATION			N	9(1)				
07	FLUORIDE-ADJUSTMENT			N	9(1)				
07	DISINFECTION			N	9(1)				
07	OTHER			N	9(1)				
07	RESERVE	FOR FUTURE TREATMENTS		N	9(3)				

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EXHIBIT II.3

SUBSYSTEM: REGULATIONS	DATE: 12/17/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 1 OF 3
FILE NAME: REGULATIONS TABLE		FILE ID:
RECORDS NAME: CHEMICALS	RECORD SIZE: 79+4	RECORD ACCESS KEY: CONTAMINANT-1 REG-LEVEL	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	CHEMICALS								
03	CONTAMINANT-ID		046	N	9(4)			1	4
03	CONTAMINANT-NAME		130	A/N	X(10)			5	14
03	REG-LEVEL		131	A/N	X(2)			15	16
03	REASON-CODE	H-HEALTH, O-ODOR, T-TASTE, C-COLOR	132	A/N	X(1)			17	17
03	MCL-DATA							18	18
05	MCL		055	N	9(6)			19	23
05	UNITS		133	A/N	X(6)			24	29
05	LOWER-LIMIT	FOR REASONABILITY CHECK	177	N	9(6)			30	35
05	HIGHER-LIMIT	ON INPUT	178	N	9(6)			36	41
05	MCL-DECIMALS		135	N	9(1)			42	42
05	CHECK-SAMPLES		136	N	9(1)			43	43
05	SEASONAL-CODE		137	A/N	X(1)			44	44
05	SPECIAL-CODE		138	A/N	X(1)			45	45

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RECORD DEFINITION

EXHIBIT II.3

SUBSYSTEM: REGULATIONS	DATE: 12/17/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 2 OF 3
FILE NAME: REGULATIONS TABLE		FILE ID:
RECORDS NAME: CHEMICALS	RECORD SIZE: 79+4	RECORD ACCESS KEY: CONTAMINANT-ID RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
05	CHECK-PERIOD	PERIOD FOR CHECK SAMPLES, IN DAYS	179	N	9(2)			46	47
03	MONITORING-DATA							48	79
05	COMMUNITY-PWS		143					48	63
07	EFFECTIVE-DATE		035	N	9(6)			48	53
07	GROUND-WATER		141					54	57
09	YEARS-TO-1ST		139	N	9(1)			54	54
09	SAMPLING-FREQUENCY		140	N	9(4)			55	58
07	SURFACE-WATER		142					59	63
09	YEARS-TO-1ST		139	N	9(1)			59	59
09	SAMPLING-FREQUENCY		140	N	9(4)			60	63
05	NON-COMMUNITY		144					64	79
07	EFFECTIVE-DATE		035	N	9(6)			64	69
07	GROUND-WATER		141					70	74
09	YEAR-TO-1ST		139	N	9(1)	25		70	70

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EXHIBIT II.3

SUBSYSTEM: REGULATIONS	DATE: 12/17/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 3 OF 3
FILE NAME: REGULATIONS TABLE		FILE ID:
RECORDS NAME: CHEMICALS	RECORD SIZE: 79 + 4	RECORD ACCESS KEY: CONTAMINANT-ID RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
09	SAMPLING-FREQUENCY		140	N	9(4)			71	74
07	SURFACE-WATER		142					75	79
09	YEARS-TO-1ST		139	N	9(1)			75	75
09	SAMPLING-FREQUENCY		140	N	9(4)			76	79

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EXHIBIT II.4

SUBSYSTEM: REGULATIONS	DATE: 12/15/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 1 OF 1
FILE NAME: REGULATIONS TABLE		FILE ID:
RECORDS NAME: TURBIDITY	RECORD SIZE: 35 + 4	RECORD ACCESS KEY: CONTAMINANT-ID REG-LEVEL	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	TURBIDITY								
03	CONTAMINANT-ID	0010	046	N	9(4)			1	4
03	CONTAMINANT-NAME	TURBIDITY	130	A/N	X(9)			5	13
03	REG-LEVEL		131	A/N	X(2)			14	15
03	MONTHLY-MCL	In TU	145	N	9(2)			16	17
03	CONSECUTIVE-MCL	In TU	146	N	9(2)			18	19
03	CONSECUTIVE-SAMPLES		147	N	9(2)			20	21
03	EFFECTIVE-DATE		035	N	9(6)			22	27
03	SURFACE-ONLY	USUALLY SURFACE ONLY (Y)	148	A/N	X(1)			28	28
03	REPEAT-INCLUDED	Y or N	149	A/N	X(1)			29	29
03	COMMUNITY-PWS		143					30	32
05	SAMPLING-FREQUENCY	In days	140	N	9(3)			30	32
03	NON-COMMUNITY		144					33	35
05	SAMPLING FREQUENCY	In Days	140	N	9(3)			33	35

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RECORD DEFINITION

EXHIBIT II.5

SUBSYSTEM: REGULATIONS	DATE: 12/17/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 1 OF 3
FILE NAME: REGULATIONS TABLE		FILE ID:
RECORDS NAME: BACTI	RECORD SIZE: 67 + 4	RECORD ACCESS KEY: CONTAMINANT-ID: REG-LEVEL
		RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
Ø1	BACTI								
Ø3	CONTAMINANT-ID	3Ø1Ø	Ø46	N	9(4)			1	4
Ø3	CONTAMIANNT-NAME	COLIFORM	13Ø	A/N	X(1Ø)			5	14
Ø3	REG-LEVEL		131	A/N	X(2)			15	16
Ø3	EFFECTIVE-DATE		Ø35	N	9(6)			17	21
Ø3	MEMBRANE-FILTER		15Ø					22	31
Ø5	SINGLE-MCL	MCL FOR A SINGLE SAMPLE	151	N	9(2)			22	23
Ø5	MONTHLY-MCL	MCL FOR MONTHLY AVERAGE	145	N	9(3)			24	26
Ø5	PERCENT-SAMPLES	THAT MAY VIOLATE THE SINGLE MCL	152	N	9(2)			27	28
Ø5	PERCENT-MCL		153	N	9(2)			29	30
Ø3	TUBE-1Ø	FERMENTATION TUBE METHOD, 10mm	154					31	38
Ø5	SINGLE-MCL		151	N	9(2)			31	32
Ø5	MONTHLY-MCL		145	N	9(2)			33	34

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EXHIBIT II.5

SUBSYSTEM: REGULATIONS	DATE: 12/17/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 2 OF 3
FILE NAME: REGULATIONS TABLE		FILE ID:
RECORDS NAME: BACTI	RECORD SIZE: 67 + 4	RECORD ACCESS KEY: CONTAMINANT-ID: REG-LEVEL
		RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
05	PERCENT-SAMPLES		152	N	9(2)			35	36
05	PERCENT-MCL		153	N	9(2)			37	38
03	TUBE-100	FERMENTATION TUBE METHOD, 100mm	155					39	47
05	SINGLE-MCL		151	N	9(2)			39	40
05	MONTHLY-MCL		145	N	9(3)			41	43
05	PERCENT-SAMPLES		152	N	9(2)			44	45
05	PERCENT-MCL		153	N	9(2)			46	47
03	CHLORINE-RESIDUAL							43	57
05	SAMPLES-IN-LIEU	CHLORINE RESIDUAL SAMPLES IN LIEU OF ONE REGULAR SAMPLE	156	N	9(2)			48	49
05	CHLORINE-PERCENT	PERCENT OF REGULAR SAMPLES THAT CAN BE SUBSTITUTED	157	N	9(2)			50	51
05	MCL	MINIMUM RESIDUAL	055	N	9(6)			52	57
03	NON-COMMUNITY		144					58	67
05	EFFECTIVE-DATE		035	N	9(6)			58	63

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EXHIBIT II.5

SUBSYSTEM: REGULATIONS	DATE: 12/17/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 3 OF 3
FILE NAME: REGULATIONS TABLE		FILE ID:
RECORDS NAME: BACTI	RECORD SIZE: 67+4	RECORD ACCESS KEY: CONTAMINANT-ID; REG-LEVEL
		RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
Ø5	SEASONAL-CODE	IS PWS BEING MONITORED ONLY DURING SEASON?	137	A/N	X(1)			64	64
Ø5	SAMPLING-PERIOD	M-MONTH Q-QUARTER (FOR NON-COMMUNITY)	158	A/N	X(1)			65	65
Ø5	SAMPLING-FREQUENCY		140	N	9(2)			66	67

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EXHIBIT II.6

SUBSYSTEM: REGULATIONS	DATE: 12/15/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 1 OF 1
FILE NAME: REGULATIONS TABLE		FILE ID:
RECORDS NAME: BACTI-POPULATION-TABLE	RECORD SIZE: 856+4	RECORD ACCESS KEY: TABLE-CODE CONTAMINANT- / RECORD TYPE:

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	BACTI-TABLE								
03	CONTAMINANT-ID	3010	046	N	9(4)			1	4
03	REG-LEVEL		131	A/N	X(2)			5	6
03	TABLE-LINE					50		7	856
05	FROM-POPULATION		159	N	9(7)				
05	TO-POPULATION		160	N	9(7)				
05	SAMPLING-FREQUENCY		140	N	9(3)				

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EXHIBIT II.7

SUBSYSTEM: WATER QUALITY COMPLIANCE	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 1 OF 2
FILE NAME: SAMPLE AND ANALYSIS FILE		FILE ID: SAF

RECORDS NAME: BACTI-SUMMARY	RECORD SIZE: 89+4	RECORD ACCESS KEY: PWS-ID CONTAMINANT-ID,ANALYSIS-METHOD	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	BACTI-SUMMARY								
03	PWS-ID		007	N	9(7)			1	7
03	SAMPLE-KEY		180	N	9(9)			8	16
03	PWS-TYPE		031	A/N	X(1)			17	17
03	POP-SERVED		021	N	9(9)			18	26
03	SOURCE-CODE	SURFACE, GROUND, ETC.	060	A/N	X(1)			27	27
03	SAMPLE-TYPE		063	A/N	X(1)			28	28
03	CONTAMINANT-ID-	3010 - COLIFORM	046	N	9(4)			29	32
03	LAB-DATA	ACCORDING TO MOST OF THE SAMPLES	066					33	38
05	LAB- ID		084	N	9(5)			33	37
05	OWNER-TYPE		065	A/N	X(1)			38	38
03	START-DATE	JULIAN FORMAT	068	N	9(5)	32		39	43
03	END-DATE	JULIAN FORMAT	069	N	9(5)			44	48

MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.7

SUBSYSTEM: WATER QUALITY COMPLAINCE	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 2 OF 2
FILE NAME: SAMPLE AND ANALYSIS FILE		FILE ID: SAF
RECORDS NAME: BACTI-SUMMARY	RECORD SIZE: 89+4	RECORD ACCESS KEY: PWS-ID CONTAMINAT-ID, ANALYSIS-METHOD	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
03	PERIOD-TYPE	M=MONTHLY, Q=QUARTERLY, Y=YEARLY, O=OTHER	070	A/N	X(1)			49	49
03	ANALYSIS-METHOD		071	N	9(3)			50	52
03	SAMPLES-REQUIRED	DURING THE SAMPLING PERIOD	072	N	9(5)			53	57
03	SAMPLES-RECEIVED	DURING THE SAMPLING PERIOD	073	N	9(5)			58	62
03	NOT-COMPLY-STATE	NUMBER OF UNCOMPLYING SAMPLES	074	N	9(5)			63	67
03	NOT-COMPLY-FED	NUMBER OF UNCOMPLYING SAMPLES	075	N	9(5)			68	72
03	HIGHEST-RESULT		076	N	9(3)			73	74
03	LOWEST-RESULT		077	N	9(3)			75	76
03	MEAN-RESULT		078	N	9(3)			77	78
03	POSITIVE-TUBES	APPLICABLE TO FERMENTATION TUBES ONLY	080	N	9(5)			79	83
03	VIOLATION-DURATION	IN DAYS	181	N	9(3)			84	86
03	CHECK-TAKEN	1 = YES, Ø = NO	182	N	X(1)			87	87
03	STATE-NOTIFIED	1 = YES, Ø = NO, 9 = UNKNOWN	183	N	X(1)			88	88
03	PUBLIC-NOTIFIED	1 = YES, Ø = NO, 9 = UNKNOWN	184	N	X(1)			89	89

MISS

MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.8

SUBSYSTEM: WATER QUALITY COMPLIANCE	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.:	PAGE 1 OF 2
FILE NAME: SAMPLES ANALYSIS FILE		FILE ID: SAF
RECORDS NAME: TURBIDITY-SUMMARY	RECORD SIZE: 69+4	RECORD ACCESS KEY: PWS-ID CONTAMINANT-ID / RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	TURBIDITY-SUMMARY								
03	PWS-ID		007	N	9(7)			1	7
03	SAMPLE-KEY		180	N	9(9)			8	16
03	PWS-TYPE		031	A/N	X(1)			17	17
03	POP-SERVED		021	N	9(7)			18	26
03	SOURCE-CODE		060	A/N	X(1)			27	27
03	SAMPLE-TYPE	RAW,or DISTRIBUTION	063	A/N	X(1)			28	28
03	CONTAMINANT-ID	0010 - TURBIDITY	046	N	9(4)			29	32
03	START-DATE	JULIAN FORMAT	068	N	9(5)			33	37
03	END-DATE	JULIAN FORMAT	069	N	9(5)			38	42
03	PERIOD-TYPE	M=MONTHLY, Q=QUARTERLY, Y=YEARLY, O=OTHER	070	A/N	X(1)			43	43

RECORD DEFINITION

EXHIBIT II.8

SUBSYSTEM: WATER QUALITY COMPLIANCE	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 2 OF 2
FILE NAME: SAMPLES ANALYSIS FILE		FILE ID: SAF
RECORDS NAME: TURBIDITY-SUMMARY	RECORD SIZE: 80+4	RECORD ACCESS KEY: PWS-ID CONTAMINANT-ID	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
03	ANALYSIS-METHOD		071	N	9(4)			44	47
03	SAMPLES-REQUIRED	DURING THE SAMPLING PERIOD	072	N	9(5)			48	52
03	SAMPLES-RECEIVED	DURING THE SAMPLING PERIOD	073	N	9(5)			53	57
03	NOT-COMPLY-STATE	NUMBER OF UNCOMPLYING SAMPLES	074	N	9(5)			58	62
03	NOT-COMPLY-FED	NUMBER OF UNCOMPLYING SAMPLES	075	N	9(5)			63	67
03	HIGHEST-RESULT		076	N	9(2)			68	69
03	LOWEST-RESULT		077	N	9(2)			70	71
03	MEAN-RESULT		078	N	9(2)			72	73
03	TURBIDITY-UNITS	SPECIAL MCL AUTHORIZED BY STATE	045	N	9(1)			74	74
03	VIOLATION-DURATION	IN DAYS	181	N	9(3)			75	77
03	CHECK-TAKEN	1 = YES; Ø = NO	182	A/N	(1)			78	78
03	STATE-NOTIFIED	1 = YES; Ø = NO; 9 = UNKNOWN	183	A/N	(1)			79	79
03	PUBLIC-NOTIFIED	1 = YES; Ø = NO; 9 = UNKNOWN	184	A/N	(1)			80	80

EMIS

"ODE" "TATE 'NFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.9

SUBSYSTEM: WATER QUALITY COMPLIANCE	DATE: 12/09/75 REVISION DATE: 4/16/76 REVISION NO.: 1	PAGE 1 OF 2

FILE NAME: SAMPLES ANALYSIS FILE (SAF) AND ANALYSIS SUMMARY FILE (ASM)	FILE ID: SAF

RECORDS NAME: CHEMICAL ANALYSIS	RECORD SIZE: 85+4	RECORD ACCESS KEY: PWS-ID CONTAMINANT-ID, ANALYSIS-METHOD	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	CHEM-ANALYSIS								
03	PWS-ID	STATE IDENTIFICATION FOR PWS	007	N	9(7)			1	7
03	SAMPLE-KEY		180	N	9(9)			8	16
03	PWS-TYPE	COMMUNITY OR NON_COMMUNITY	031	A/N	X(1)			17	17
03	POP-SERVED	SIZE OF THE POPULATION SERVED	021	N	9(9)			18	26
03	SOURCE-CODE	TYPE OF WATER SOURCE	060	N	9(1)			27	27
03	SAMPLE-TYPE	RAW,TREATED, DISTRIBUTION,CHECK	063	N	9(1)			28	28
03	CONTAMINANT-ID	4 DIGIT CODE	046	N	9(4)			29	32
03	SOURCE-ID	IDENTIFICATION OF SOURCE, WITHIN THE PWS	081	N	9(2)			33	34
03	LATITUDE	HOURS, MINUTES, SECONDS	058	N	9(7)			35	41
03	LONGITUDE	HOURS, MINUTES, SECONDS	059	N	9(7)			42	48
03	LAB-DATA		066					49	54
05	LAB-ID		084	N	9(5)			49	53
05	OWNER-TYPE		065	A/N	X(1)			54	54

MMS

MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.9

SUBSYSTEM: WATER QUALITY COMPLIANCE	DATE: 12 / 09 / 75 REVISION DATE: 4 / 15 / 76 REVISION NO.: 1	PAGE 2 OF 2
FILE NAME: SAMPLES ANALYSIS FILE (SAF) AND ANALYSIS SUMMARY FILE (ASM)		FILE ID: SAF
RECORDS NAME: CHEMICAL-ANALYSIS	RECORD SIZE: 85+4	RECORD ACCESS KEY: PWS-ID, CONTAMINANT-ID, ANALYSIS-METHOD / RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
Ø3	SAMPLE DATE	JULIAN YYNNN	082	N	9(5)			55	59
Ø3	ANALYSIS-DATE	JULIAN YYNNN	083	N	9(5)			60	64
Ø3	ANALYSIS-METHOD	METHOD USED FOR ANALYSIS	Ø71	N	9(3)			65	67
Ø3	ANALYSIS-RESULT	RESULT OF ANALYSIS	Ø85	N	9(6)			68	73
Ø3	AIR-TEMPERATURE	AVERAGE AIR TEMPERATURE	Ø86	N	9(3)			74	76
Ø3	MINIMUM-INDICATOR	INDICATOR IF RESULT IS THE MINIMUM DETECTABLE BY ANALYSIS METHOD	Ø87	N	9(1)			77	77
Ø3	V-AND-E		Ø54					78	83
Ø5	MCL	IF APPLICABLE	Ø55	N	9(6)			78	83
Ø3	VIOLATE-STATE	1 = YES; Ø = NO	185	A/N	X(1)			84	84
Ø3	VIOLATE-FEDERAL	1 = YES; Ø = NO	186	A/N	X(1)			85	85

RECORD DESCRIPTION — EXHIBIT II.10

SUBSYSTEM: WATER QUALITY COMPLIANCE	DATE: 12/15/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 1 OF 2

FILE NAME: VIOLATION FILE	FILE ID: VIF

RECORDS NAME: VIOLATION RECORD	RECORD SIZE: 83	RECORD ACCESS KEY: VIOLATION-ID / PWS-ID	RECORD TYPE: F

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	VIOLATION								
03	VIOLATION-ID	5-DIGIT IDENTIFICATION	161	N	9(5)			1	5
03	VIOLATION-TYPE		125	A/N	X(1)			6	6
03	PWS-ID		007	N	9(7)			7	13
03	VIOLATION-DATE	JULIAN FORMAT	124	N	9(5)			14	18
03	CONTAMINANT-ID	WHEN APPLICABLE	046	N	9(4)			19	22
03	LAB-DATA		066					23	28
05	LAB-ID		084	N	9(5)			23	27
05	OWNER TYPE		065	A/N	X(1)			28	28
03	REMARKS	WHEN APPLICABLE	162	A/N	X(25)			29	53
03	ANALYSIS-METHOD	WHEN APPLICABLE	071	A/N	9(3)			54	56
03	ANALYSIS RESULT	WHEN APPLICABLE	085	N	9(6)			57	62
03	REG-LEVEL	REGULATIONS VIOLATED	131	A/N	X(2)			63	65

MODEL STATE INFORMATION SYSTEM

RECORD DEFINITION

EXHIBIT II.10

SUBSYSTEM: WATER QUALITY COMPLIANCE	DATE: 12/15/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 2 OF 2
FILE NAME: VIOLATION FILE		FILE ID: VIF
RECORDS NAME: VIOLATION RECORD	RECORD SIZE: 83	RECORD ACCESS KEY: VIOLATION-ID PWS-ID	RECORD TYPE: F

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
03	SAMPLES-REQUIRED		072	N	9(5)			66	70
03	SAMPLES-RECEIVED		073	N	9(5)			71	75
03	VIOLATION-DURATION	IN DAYS	181	N	9(3)			76	78
03	LAST-UPDATE	LAST UPDATE DATE	003	N	9(5)			79	83

MSIS

MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.11

SUBSYSTEM: VARIANCES AND EXEMPTIONS	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 1 OF 2
FILE NAME: VARIANCES AND EXEMPTIONS FILE		FILE ID: VEF
RECORDS NAME: V & E RECORD	RECORD SIZE: 545+4 to 3765+4 RECORD ACCESS KEY: VE-ID	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	VE-RECORD						YES		
03	VE-ID	5 DIGITS IDENTIFICATION NUMBER	088	N	9(5)			1	5
03	VE-ID-REF	REFERENCE TO A PREVIOUS V & E IF THIS ONE IS A REVISED VERSION	089	N	9(7)			6	12
03	PWS-ID	7 DIGITS IDENTIFICATION OF A PWS	007	N	9(5)			13	17
03	VE-TYPE	'V' FOR VARIANCE; 'E' FOR EXEMPTION	090	A/N	X(1)			18	18
03	EFFECTIVE-DATE	EFFECTIVE DATE OF THE V & E, IN JULIAN MODE	035	N	9(5)			19	23
03	EXPIR-DATE	EXPIRATION DATE, IN JULIAN MODE. VALUE OF ALL '9' INDICATES NO EXPIRATION DATE SET	036	N	9(5)			24	28
03	VE-STATUS	LEGAL STATUS OF THE V & E.	091	A/N	X(1)			29	29
03	CONTAMINANT-ID	CONTAMINANT-ID, WHERE MCL OR SAMPLING REQUIREMENT ETC. ARE RELATED	046	N	9(4)			30	33
03	MODIFIED-MCL	WHEN APPLICABLE. OTHERWISE, EMPTY VALUE.	092	N	9(6)			34	39
03	TREATMENT	TREATMENT TYPE CODE, WHEN APPLICABLE	093	N	9(3)			40	42
03	ALTERNATE-TREATMENT	WHEN APPLICABLE	187	N	9(3)			43	45
03	VE-ABSTRACT	10 LINES OF 49 POSITIONS EACH	094	A/N	X(49)	10		46	535
03	REASON	CODE OF REASON FOR V&E	095	A/N	X(2)			536	537

MODEL STATE INFORMATION SYSTEM

RECORD DEFINITION

EXHIBIT II.11

SUBSYSTEM: VARIANCES AND EXEMPTIONS	DATE: 12 / 08 / 75 REVISION DATE: 4 / 15/76 REVISION NO.: 1	PAGE 2 OF 2
FILE NAME: VARIANCE AND EXEMPTIONS FILE		FILE ID: VEF
RECORDS NAME: V&E RECORD	RECORD SIZE: 545+4 to 3765+4	RECORD ACCESS KEY: VE-ID	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
03	LAST-UPDATE	DATE OF LAST UPDATE, IN JULIAN MODE	003	N	9(5)			538	542
03	MILESTONE-NUM	NUMBER OF MILESTONES IN COMPLIANCE SCHEDULE IF ZERO, NO SCHEDULE ATTACHED TO V&E	096	N	9(2)			541	544
03	VE-MILESTONE	A REPEATING GROUP, SORTED BY TARGET DATE				20		545	3765
05	REPEAT-EVERY	00 = NOT REPEATING, NON-ZERO = NUMBER OF MONTHS	188	N	9(2)				
05	TARGET-DATE	MILESTONE TARGET DATE, JULIAN MODE	097	N	9(5)				
05	ACTUAL-DATE	DATE MILESTONE REACHED, IF REACHED, JULIAN	098	N	9(5)				
05	MILESTONE-CODE	CODE DESCRIBING MILESTONE	099	N	9(1)				
05	DELAY-CODE	CODE DESCRIBING REASON FOR DELAY IN REACHING	100	A/N	X(1)				
05	ABSTRACT	3 LINES of 49 POSITIONS EACH	101	A/N	X(147)				

MODEL STATE INFORMATION SYSTEM

RECORD DEFINITION

EXHIBIT II.12a

SUBSYSTEM: LABORATORY TABLE	DATE: 4/15/76 REVISION DATE: __/__/__ REVISION NO.: _____	PAGE 1 OF 1
FILE NAME: LABORATORY TABLE		FILE ID: _____
RECORDS NAME: LABORATORY HEADER	RECORD SIZE: 80	RECORD ACCESS KEY: LAB-ID / RECORD TYPE: F

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	LAB-HEADER								
03	LAB-ID		084	N	9(5)			1	5
03	HEADER-CODE	'H'		A/N	X(1)			6	6
03	OWNER-TYPE		065	A/N	X(1)			7	7
03	LAB-NAME		102	A/N	X(30)			8	37
Ø3	EXPIRATION-DATE			N	9(6)			38	43
03	FILLER	SO THAT RECORD LENGTH IS FIXED		A/N	X(37)			44	80

MODEL STATE INFORMATION SYSTEM

RECORD DEFINITION

EXHIBIT II.12b

SUBSYSTEM: LABORATORY TABLE	DATE: 4/15/76 REVISION DATE: __/__/__ REVISION NO.: _____	PAGE 1 OF 1
FILE NAME: LABORATORY TABLE		FILE ID: _____
RECORDS NAME: LABORATORY TRAILER	RECORD SIZE: 80	RECORD ACCESS KEY: LAB-ID / RECORD TYPE: F

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	LAB-TRAILER								
03	LAB-ID		084	N	9(5)			1	5
03	TRAILER-CODE	'T'		A/N	X(1)			6	6
03	CONTAMINANT-GROUP	IF AUTHORIZED TO ANALYZED	110	N	9(1)			7	7
03	ANALYSIS-METHOD	UP TO 24 METHODS	071	N	9(3)	24		8	79
03	FILLER			A/N	X(1)			80	80

MISS

MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.13

SUBSYSTEM: ENFORCEMENT ACTIONS	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 1 OF 3
FILE NAME: ENFORCEMENT ACTIONS FILE		FILE ID: EAF

RECORDS NAME: ENFORCEMENT ACTIONS	RECORD SIZE: 554+4 to 723+4	RECORD ACCESS KEY: CASE-ID	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	ENFORCEMENT-ACTION								
03	CASE-ID	IDENTIFICATION NUMBER	113	N	9(5)			1	5
03	CASE-REFERENCE	LEGAL FILE NUMBER, ETC.	114	A/N	X(12)			6	17
03	CASE-NAME	VERBAL REFERENCE TO CASE	115	A/N	X(30)			18	47
03	ACTION-DATE	IN JULIAN FORMAT	116	N	9(5)			48	52
03	CLOSE-INDICATOR	0 - CASE OPEN, 1 - CASE CLOSED	117	N	9(1)			53	53
03	PLAINTIF-INFO		120					54	84
05	PARTY-TYPE	CODE DESCRIBING - PWS OWNER, STATE, EPA, ETC.	118	A/N	X(1)			54	54
05	NAME		122	A/N	X(30)			55	84
03	DEFENDANT-INFO		121					85	115
05	PARTY-TYPE		118	A/N	X(1)			85	85
05	NAME		122	A/N	X(30)			86	115
03	CONSENT-ORDER							116	120

CODE STATE INFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.13

SUBSYSTEM: ENFORCEMENT ACTIONS	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 2 OF 3
FILE NAME: ENFORCEMENT ACTIONS FILE		FILE ID: EAF
RECORDS NAME: ENFORCEMENT ACTIONS	RECORD SIZE: 554+4 to 723+4	RECORD ACCESS KEY: CASE-ID	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
05	CONSENT-ORDER-NO		192	A/N	X(7)			116	122
05	CONSENT-ORDER-DATE	IN JULIAN FORMAT	193	N	9(5)			123	127
03	PERMIT-DATA								
05	PERMIT-NO		194	A/N	X(7)			128	134
05	PERMIT-DATE	JULIAN FORMAT	195	N	9(5)			135	139
03	PWS-ID	OF PWS INVOLVED	007	N	9(7)			140	146
03	PWS-STATE		008	A/N	X(2)			147	246
03	VIOLATIONS					10		149	248
05	VIOLATION-DATE	JULIAN FORMAT	124	N	9(5)				
05	CONTAMINANT-ID	IF APPLICABLE	046	N	9(4)				
05	VIOLATION-TYPE		125	A/N	X(1)				
03	CASE-ABSTRACT	UP TO 10 LINES OF 30 CHARACTERS EACH	126	A/N	X(30)	10		247	546
03	LEGAL-STATUS		127	A/N	X(1)			547	547
03	LAST-UPDATE	JULIAN FORMAT	003	N	9(5)			548	552
03	MILESTONE-NUM	NUMBER OF MILESTONES	006	N	9(2)			553	554

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MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

SUBSYSTEM: ENFORCEMENT ACTIONS	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: L	PAGE 3 OF 3
FILE NAME: ENFORCEMENT ACTIONS FILE		FILE ID: FAF
RECORDS NAME: ENFORCEMENT ACTIONS	RECORD SIZE: 554+4 to 723+4	RECORD ACCESS KEY: CASE-ID / RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
03	MILESTONE-NUM	NUMBER OF MILESTONES	096	nN	9(2)			553	554
05	TARGET-DATE	JULIAN FORMAT	097	N	9(5)				
05	ACTUAL-DATE	JULIAN FORMAT	098	A/N	9(5)				
05	MILESTONE-CODE		099	A/N	X(1)				

MSIS

MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.14

SUBSYSTEM: OPERATOR AND MAILING	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 1 OF 2
FILE NAME: OPERATOR AND MAILING FILE		FILE ID: ___ OMF
RECORDS NAME: OPERATOR-ADDRESS RECORD	RECORD SIZE: 118+4 to 143+4	RECORD ACCESS KEY: ADDRESS-ID ADDRESSEE-TYPE	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	ADDRESS-RECORD								
03	ADDRESSEE-ID		128	N	9(5)			1	5
03	ADDRESSEE-TYPE	O-OPERATOR	129	A/N	X(1)			6	6
03	NAME		122	A/N	X(30)			7	36
03	ADDRESS-LINE-1		010	A/N	X(30)			37	66
03	ADDRESS-LINE-2		011	A/N	X(30)			67	96
03	STATE		013	A/N	X(2)			97	98
03	ZIP		014	N	9(5)			99	103
03	ADDRESSEE-PHONE							104	113
05	AREA-CODE		015	N	9(3)			104	106
05	PHONE-NUM		016	N	9(7)			107	113
03	LAST-UPDATE	LAST UPDATE DATE	003	N	9(5)			114	118

MODEL STATE INFORMATION SYSTEM

RECORD DEFINITION

EXHIBIT II.14

SUBSYSTEM: OPERATOR AND MAILING	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 2 OF 2
FILE NAME: OPERATOR AND MAILING FILE		FILE ID: OMF
RECORDS NAME: OPERATOR-ADDRESS-RECORD	RECORD SIZE: 118+4 to 143+4	RECORD ACCESS KEY: ADDRESS-ID	RECORD TYPE: V

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
03	OPERATOR-INFO	THIS PART EXISTS ONLY FOR ADDRESSEE TYPE '0'							
05	CERTIFICATE-NUM		189	A/N	X(7)			119	125
05	PWS-ID	WHEN IF APPLICABLE	007	N	9(7)			126	132
05	OPERATOR-CLASS		190	A/N	X(1)	6		133	138
05	RENEWAL-DATE	WHEN APPLICABLE, JULIAN FORMAT	191	N	9(5)			139	143

MODEL STATE INFORMATION SYSTEM

RECORD DEFINITION

EXHIBIT II.15

SUBSYSTEM: FEDERAL REPORTING	DATE: 12/15/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 1 OF 2
FILE NAME: DEVIATIONS FILE		FILE ID:
RECORDS NAME: DEVIATION RECORD	RECORD SIZE: 59	RECORD ACCESS KEY: DEVIATION-ID, DEVIATION-TYPE	RECORD TYPE: F

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	DEVIATION								
03	DEVIATION-TYPE	1=VIOLATION, 2=VARIANCE, 3=EXEMPTION	163	A/N	X(1)			1	1
03	DIVIATION-ID	AS IN STATE'S FILES	164	N	9(5)			2	6
03	PWS-ID	OF STATE	007	N	9(7)			7	13
03	PWS-STATE		008	A/N	X(2)			14	15
03	DEVIATION-CODE	VIOLATION TYPE OR V&E REASON	166	A/N	X(2)			16	17
03	VE-STATUS	AS COPIED FROM THE VED (V&E ONLY)	091	A/N	X(1)			18	18
03	MCL	IF APPLICABLE	055	N	9(6)			19	24
03	TREATMENT	IF APPLICABLE (V&E ONLY)	093	N	9(3)			25	27
03	ALTERNATE TREATMENT	IF APPLICABLE (V&E ONLY)		N	9(3)			28	30
03	MILESTONE-CODE	OF NEXT MILESTONE	099	A/N	X(1)			31	31
03	TARGET-DATE	OF NEXT MILESTONE	097	N	9(6)			32	37
03	CONTAMINANT-ID	IF APPLICABLE	046	N	9(4)			38	41

MMIS

MODEL STATE INFORMATION SYSTEM

RECORD DEFINITION

EXHIBIT II.15

SUBSYSTEM: FEDERAL REPORTING	DATE: 12/15/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 2 OF 2
FILE NAME: DEVIATIONS FILE		FILE ID:
RECORDS NAME: DEVIATION RECORD	RECORD SIZE: 59	RECORD ACCESS KEY: DEVIATION-ID DEVIATION-TYPE	RECORD TYPE: F

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
03	LAB-DATA		066					42	42
05	LAB-OWNER-TYPE	IF APPLICABLE (VIOLATION ONLY)	065	A/N	X(1)			42	42
03	ANALYSIS-METHOD	IF APPLICABLE (VIOLATION ONLY)	071	N	9(3)			43	45
03	ANALYSIS/RESULT	IF APPLICABLE (VIOLATION ONLY)	085	N	9(6)			46	51
03	VIOLATION-DATE	JULIAN FORMAT	181	N	9(5)			52	56
03	VIOLATION-DURATION	IN DAYS (VIOLATIONS ONLY)		N	9(3)			57	59

MMS

MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

EXHIBIT II.16

SUBSYSTEM: ALL	DATE: 12/08/75 REVISION DATE: 4/15/76 REVISION NO.: 1	PAGE 1 OF 1
FILE NAME: ANALYSIS METHODS TABLE		FILE ID:
RECORDS NAME:	RECORD SIZE: 44	RECORD ACCESS KEY: RECORD TYPE: F

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
Ø1	METHOD-ENTRY								
Ø3	ANALYSIS-METHOD	IDENTIFICATION OF ANALYSIS METHOD	Ø71	N	9(3)			1	3
Ø5	METHOD-NAME	FULL SCIENTIFIC NAME OF METHOD	167	A/N	X(30)			4	33
Ø5	METHOD-SHORT	SHORT NAME TO IDENTIFY METHOD	168	A/N	X(10)			34	43
Ø5	CONTAMINANT-GROUP	CONTAMINANT GROUP TO WHICH THIS METHOD APPLY	11Ø	A/N	X(1)			44	44

MSIS

MODEL STATE INFORMATION SYSTEM
RECORD DEFINITION

Exhibit II.17

SUBSYSTEM: ALL	DATE: 12/08/75 REVISION DATE: __/__/__ REVISION NO.:	PAGE 1 OF 1
FILE NAME: PWS TABLE		FILE ID: PWS-TABLE
RECORDS NAME: PWS TABLE ENTRY	RECORD SIZE: 53	RECORD ACCESS KEY: PWS-ID / RECORD TYPE: F

FIELD DESCRIPTION

LEVEL	DATA ELEMENT MNEMONIC	DATA ELEMENT NAME/DESCRIPTION	DATA ELEMENT CAT. NO.	DATA TYPE	PICTURE	OCCUR	VAR	POSITION FROM	POSITION TO
01	PWS-ENTRY								
03	PWS-ID		007	N	9(7)			1	7
03	PWS-NAME		009	A/N	X(30)			8	37
03	PWS-TYPE	C-COMMUNITY, N-NON-COMMUNITY	031	A/N	X(1)			38	38
03	POP-SERVED		021	N	9(9)			39	47
03	COMPLIANCE-CYCLE		037	N	9(2)			48	49
03	REGION		018	A/N	X(2)			50	51
03	DISTRICT		019	A/N	X(3)			52	53
									51

III. REPORTS LAYOUT AND EXPLANATION

STANDARD SUBSYSTEM UPDATE REPORTS

EXHIBIT	ID	NAME	FREQUENCY
III.1	MSIS010R	STANDARD SUBSYSTEM ERROR REPORT	AFTER EACH UPDATE
III.2	MSIS020R	STANDARD FILE UPDATE REPORT	AFTER EACH UPDATE

MSIS010R

DATE XX/XX/XX DATA ENTRY ERROR REPORT FOR SUBSYSTEM: _____ PAGE: __

REGION: _____ DISTRICT: _____

ERROR NUMBER	1234567890123456789012345678901234567890123456789012345678901234567890	DATA ELEMENT COLUMNS	EXPLANATION
___	_____	XX-XX	_____

EXHIBIT III.1

EXPLANATION

This is the standard format of the MSIS data entry error report. Each transaction in error is listed once and to its right all the errors are explained by field name, location (columns) and error type. Each transaction in error is numbered to facilitate error correction if an on-line text editor is available to the State. When only part of the transaction is in error, then only this part needs to be keypunched again. If the responsibility for error correction rests with an administrative subunit (such as regions and districts), the error list may be sorted to provide a separate error list for each administrative subunit.

1234567890123456789012345678901234567890123456789012345678901234567890

STANDARD FILE UPDATE REPORT

MSIS020R

DATE: ____ UPDATE REPORT FOR FILE: _____ PAGE: __
OPTION: _____

RECORD-ID	LAST UPDATE	UPDATE DATE	DATA ELEMENT	NEW VALUE	OLD VALUE
____	/ /	/ /			

EXHIBIT III.2

EXPLANATION

MSIS utilizes a History File to keep track of all the updates that are made to MSIS files. Following each file update run, the results are added to the History File and this report is printed. The report shows, for each record, all the data elements that were changed and their old and new values together with the dates on which these values were established.

The State Water Supply Administrator has the option to list the same report from the entire History File, thereby obtaining a complete audit trail for every record in MSIS.

Updates to all files, except the PWS Inventory File, will be reported in the above format; the Inventory File Update Report contains additional information as displayed in Report PWSI060R

PUBLIC WATER SYSTEM (PWS) INVENTORY SUBSYSTEM

EXHIBIT	ID	NAME	FREQUENCY
III.3	PWSI01ØR	CONDENSED LISTING	AS REQUIRED
III.4	PWSI02ØR	PRODUCTION AND CAPACITY DATA	AS REQUIRED
III.5	PWSI03ØR	STATE DISCRETIONARY DATA	AS REQUIRED
III.6	PWSI04ØR	STATUS AND ENTRY FORM	AS REQUIRED
III.7	PWSI05ØR	COMPREHENSIVE LIST	AS REQUIRED
III.8	PWSI06ØR	PWS INVENTORY UPDATE REPORT	AS REQUIRED

PWSIØ1ØR

DATE / /

PUBLIC WATER SYSTEMS - CONDENSED LISTING

PAGE

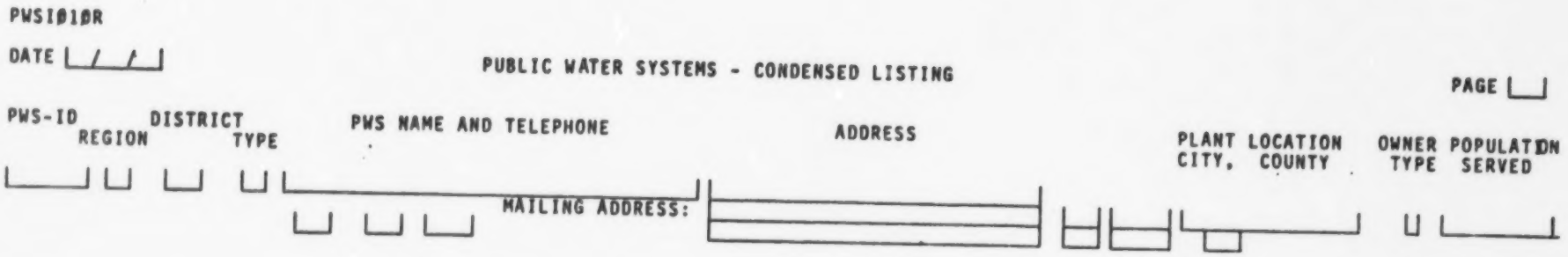


EXHIBIT III.3

EXPLANATION

This is a quick reference list containing key data for all or a selected group of public water systems (PWSs). The list can be obtained sorted by alphabetic order, PWS identification, administrative subunit, etc. State officials may specify the desired sorting order and select a group of PWSs on several attributes. This report is optional and will be produced on request only.

For example: Select the records of all PWSs that serve a population of at least 100,000 persons, use ground water only, and do not use softening treatments, and sort this list alphabetically by PWS name.

PRODUCTION AND CAPACITY DATA

PWSIØ2ØR
DATE: __/__/__ PUBLIC WATER SYSTEMS - PRODUCTION AND CAPACITY DATA PAGE __

REGION: _____ DISTRICT: _____

ID	NAME	TYPE	POPULATION SERVED	SERVICES NUMBER	METERS NUMBER	CONSE-CUTIVE	NORMAL CAPACITY	EMERGENCY POWER	STORAGE CAPACITY	MAXIMUM PRODUCTION
__	_____	_	_____	_____	_____	_____	_____	_____	_____	_____
**	TOTAL FOR DISTRICT	_____	_____	_____	_____	_____	_____	_____	_____	_____
***	TOTAL FOR REGION	_____	_____	_____	_____	_____	_____	_____	_____	_____
****	TOTAL FOR STATE	_____	_____	_____	_____	_____	_____	_____	_____	_____

EXHIBIT III.4

EXPLANATION

This report displays production and capacity data for all or selected groups of PWSs. It is intended to be used for planning, surveillance and reporting to upper management. This data is also totaled for the state and, when the list is sorted by administrative subunit, the data is also totaled for the administrative subunit. In the summary lines, the first total contains the count of PWSs, and other totals correspond to the title at the top of the columns.

Like other reports from the PWS Inventory File (PWSIF), state officials can specify the desired selection criteria and sort order. The report is produced only on request and according to the specified criteria.

Example: select the records of all PWSs that are non-community and serve service stations, and sort this list by PWS identification number within administrative subunit.

PWSI030R
DATE: XX/XX/XX

PUBLIC WATER SYSTEMS - STATE DISCRETIONARY DATA

PAGE ____

REGION: _____ DISTRICT: _____

ID	NAME	TYPE	BACTERIOLOGICAL					TURBIDITY	CHEMICALS					
			MONTHLY MONITORING	SAMPLES PER QTR	SEASON START	SEASON END	MONITORING FREQUENCY	CHLORINE RESIDUAL	MODIFIED MCL	NITRATE FREQUENCY	ORGANIC START	ORGANIC END	ORGANIC WAIVED	RADIOLOGICA
____	_____	U	U	____	____	____	____	____	____	____	____	____	U	U

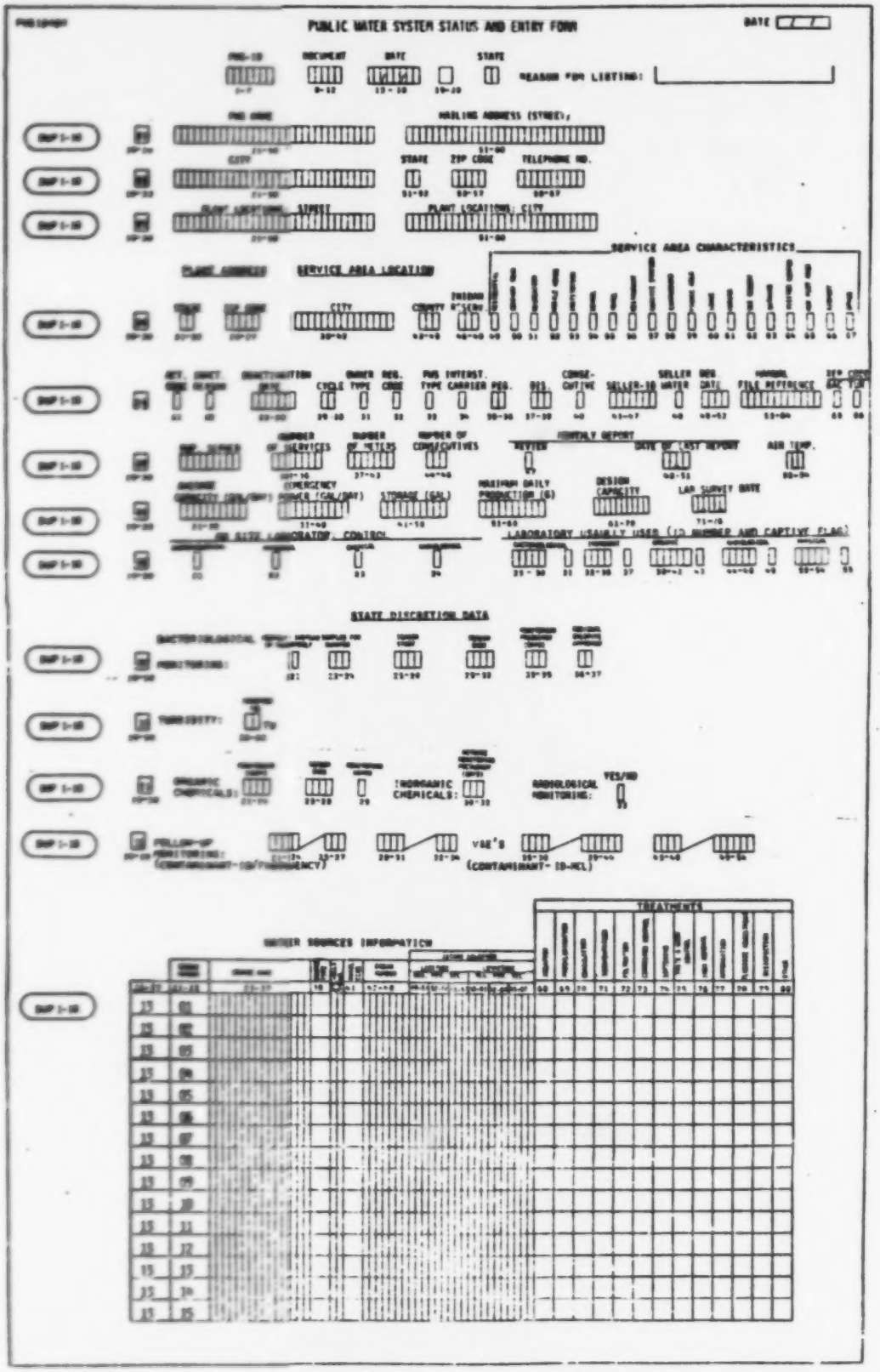
FOLLOW-UP: ____ ____ VARIANCE OR EXEMPTION: ____ ____

EXHIBIT III.5

EXPLANATION

This report shows specific data representing special conditions for which the state is given discretionary authority to set standards that apply to a particular public water system (PWS). The purpose of this report is to aid in identifying PWSs for which special regulations have been established. As with all the reports listed from the PWS Inventory File (PWSIF), state officials can specify desired selection criteria and sort order, and produce the report upon request.

Example: Select the records of all PWSs that serve a population size under 20,000 persons and have a modified turbidity MCL of three turbidity units; sort by size of population served.


PUBLIC WATER SYSTEM STATUS AND ENTRY FORM
DATE
PWS-ID
RECORD
DATE
STATE
REASON FOR LISTING:
PWS NAME
MAILING ADDRESS (STREET)
CITY
STATE
ZIP CODE
TELEPHONE NO.
PLANT LOCATION: STREET
PLANT LOCATION: CITY
SERVICE AREA CHARACTERISTICS
PLANT ADDRESS
SERVICE AREA LOCATION
CITY
COUNTY
CYCLE
OWNER TYPE
OWNER REG. CODE
PWS TYPE
INTERST. CARRIER
REG.
CONSE-CUTIVE
SELLER-ID
SELLER WATER
DER DATE
FILE REFERENCE
NUMBER OF SERVICES
NUMBER OF METERS
NUMBER OF CONSECUTIVES
MONTHLY REPORT
REVIEW
DATE OF LAST REPORT
AIR TEMP.
DESIGN CAPACITY
LAB SURVEY DATE
STATE DISCRETION DATA
BACTERIOLOGICAL
TURBIDITY:
ORGANIC CHEMICALS:
INORGANIC CHEMICALS:
RADIOLOGICAL MONITORING:
YES/NO
VOC'S
WATER SOURCES INFORMATION
TREATMENTS

PWSIØ4ØR

EXPLANATION

As the name "Public Water Systems Status and Entry Form" implies, this form is used both for entering PWS data and for displaying all the data elements which are present in a PWS record. Forms of this type are called "turnaround documents". There are several purposes for this report, the most important being:

- To display the status of one, all, or a selected group of PWSs.
- * To display the status of all PWSs that were selected for sanitary survey.
- To serve as a source document for data entry.
- * To provide review of the data in a PWS record following its creation.
- * To help in correcting errors in updating transactions.

The same selection process that is used with other reports from the PWSIF is also used for the PWS status report. The report may be produced on request, but it will also be produced automatically in the three instances marked above with an asterisk.

Example: Select, for display of status, records of all PWSs that have production capacity under 1-million gallons per day and use a softening treatment.

NOTE: The exhibit is reduced from the original to conform to page size. It is produced here as a prototype document, which will be further refined during the next design phase. To examine all the data elements, please refer to the next page where Report PWSIØ5ØR contains the same information as contained in this report.

EXHIBIT III.6 (Con't.)

PWSI050R
DATE / /

PUBLIC WATER SYSTEM COMPREHENSIVE LIST
REASON FOR LISTING:

PAGE

EXHIBIT III.7

PWS ID: NAME: MAILING ADDRESS: SERVICE AREA LOCATION:

REGION: DISTRICT: CYCLE: BEGINNING DATE: / CITY: COUNTY:

PWS-TYPE: OWNER-TYPE: CONSECUTIVE: SELLER-ID: PLANT LOCATION: INDIAN RESERVATION CODE: PHONE:

ACTIVITY CODE: DEACTIVATION-REASON: DEACTIVATION-DATE: / / REGULATION-CODE: MANUAL-FILE-REFERENCE:

BACTERIOLOGICAL-REPORTING-CODE: TURBIDITY-REPORTING-CODE:

SERVICE AREA CHARACTERISTICS: RESIDENTIAL: COMPANY TOWN: RECREATION: MOBILE HOME PARK: INSTITUTION:
SCHOOL: MOTEL: RESTAURANT: SERVICE STATION: CAMPGROUND: PICNIC AREA:
LODGE: MARINA: SKI RESORT: BATHING: VISITOR CENTER: HIGHWAY REST AREA:
AIRPORT: OTHER:

POPULATION SERVED: NUMBER OF SERVICES: NUMBER OF METERS: NUMBER OF CONSECUTIVE PWS:

NORMAL CAPACITY: EMERGENCY POWER: STORAGE CAPACITY: MAXIMUM PRODUCTION:

STATE DISCRETIONARY: BACTERIOLOGICAL MONITORING: MONTHLY MONITORING: SAMPLES PER QUARTER: SEASON STARTS: / ENDS /

MONITORING FREQUENCY: DAYS CHLORINE RESIDUAL % OF SAMPLES

TURBIDITY: MODIFIED MCL: TU

ORGANIC CHEMICALS: SAMPLING PERIOD STARTS: / ENDS: / SAMPLING WAVED:

INORGANIC DHEMICALS: NITRATE MONITORING FREQUENCY: DAYS

LABORATORY CONTROL
AND USAGE (LABS-ID/CAPTIVE FLAG): BACTERIOLOGICAL: / PHYSICAL: / INORGANIC: / ORGANIC: / RADIOLOGICAL: /

FOLLOW-UP (CONTAMINANT-ID/FREQUENCY): / / VARIANCE OR EXEMPTION (CONTAMINANT-ID/MCL): / /

SOURCE NUMBER	SOURCE NAME	SOURCE TYPE	NUMBER OF WELLS	AVAIL. CODE	BASIN NUMBER	LATITUDE	LONGITUDE	----- TREATMENTS -----
								A P C S F C S T I A F D O R R O E I U O A R M L I T E E A D L R F S O M U S H A C G I T R T T N O O I E T H L M R O E E R N R N R

59

PWSIØ5ØR

EXPLANATION

This report displays all the data elements which are present in a PWS record. It is intended to be used in place of a PWS Status and Entry Form by those states that opt not to use the form as a turnaround document (i.e., except for this capability). The PWS Comprehensive List is simply an output document and it is not designed to be used as an input form. The explanation of report PWSIØ4ØR (PWS Status and Entry Form) applies to this report.

PWS INVENTORY UPDATE REROR T

PWSI060R

PUBLIC WATER SYSTEMS INVENTORY UPDATE REPORT OPTION: [ ] PAGE [ ]

DATE: [/ /]

REGION: [ ] DISTRICT: [ ]

PWS-ID	PWS NAME	LAST UPDATE	REFERENCE		DATA ELEMENT	NEW VALUE	OLD VALUE
[ ]	[ ]	[/ /]	[ ]	[/ /]	[ ]	[ ]	[ ]

EXHIBIT III.8

EXPLANATION

MSIS utilizes a Special History File to keep track of all the changes that are made to the Public Water System Inventory File. The result of any successful updating action is posted to the History File. The PWS Inventory Update Report shows all the data elements that were changed in each record, together with the source document identification, date of change, and new and old values. This report is similar to the standard MSIS Update Report (MSIS020R) but contains more information per record. The report will be produced following every update processing of the PWSIF, showing all the successful updates during this run.

The entire PWS History File may be listed upon request to show all changes in chronologic order to each PWS record.

WATER QUALITY COMPLIANCE SUBSYSTEM

LIST OF REPORTS

EXHIBIT	ID	NAME	FREQUENCY
III.9	WAQCØ1ØR	INPUT TRANSACTION LIST	AFTER EACH UPDATE
III.10	WAQCØ2ØR	LIST OF SAMPLES IN VIOLATION OF CHEMICAL AND RADIOLOGICAL STANDARDS	PER REPORTING CYCLE
III.11	WAQCØ3ØR	LIST OF PWSS IN VIOLATION OF MINIMUM SAMPLING REQUIREMENTS (BACTERIOLOGICAL AND TURBIDITY)	PER REPORTING CYCLE
III.12	WAQCØ4ØR	LIST OF PWS IN VIOLATION OF MINIMUM SAMPLING REQUIREMENTS (CHEMICAL AND RADIOLOGICAL)	PER REPORTING CYCLE
III.13	WAQCØ5ØR	SUMMARY OF BACTERIOLOGICAL ANALYSES BY PWS	PER REPORTING CYCLE
III.14	WAQCØ6ØR	SUMMARY OF TURBIDITY ANALYSES BY PWS	PER REPORTING CYCLE
III.15	WAQCØ7ØR	THE MONTHLY OPERATIONS REPORT PWSS LATE IN SUBMITTING	MONTHLY
III.16	WAQCØ8ØR	SUMMARY OF CHEMICAL AND RADIOLOGICAL ANALYSES	AS REQUIRED
III.17	WAQCØ9ØR	COMPLIANCE SUMMARY BY PWS	PER REPORTING CYCLE
III.18	WAQC1ØØR	CHEMICAL/RADIOLOGICAL SAMPLING SCHEDULED BY PWS	PER REPORTING CYCLE
III.19	WAQC11ØR	CHEMICAL ANALYSIS REPORT FORM	PER REPORTING CYCLE
III.20	WAQC12ØR	BACTERIOLOGICAL SAMPLE REPORT FORM	PER REPORTING CYCLE
III.21	WAQC13ØR	RECORD OF BACTERIOLOGICAL SAMPLES AND ANALYSES	PER REPORTING CYCLE
III.22	WAQC14ØR	SUMMARY OF BACTERIOLOGICAL MONITORING	PER REPORTING CYCLE
III.23	WAQC15ØR	REPORT OF TURBIDITY SAMPLING AND ANALYSIS	PER REPORTING CYCLE
III.24	WAQC16ØR	SUMMARY OF TURBIDITY MONITORING	PER REPORTING CYCLE

INPUT TRANSACTION LIST

```
WAQC010R

 DATE XX/XX/XX                  WATER QUALITY COMPLIANCE - TRANSACTIONS LIST

TRANS.          1         2         3         4         5         6         7         8
NUMBER 12345678901234567890123456789012345678901234567890123456789012345678901234567890

└──┘ └──────────────────────────────────────────────────────────────────────────────┘
```

EXHIBIT III.9

EXPLANATION

Most of the reports produced by the Water Quality Compliance Subsystem merely list samples that are in violation of State or Federal standards. This optional report, on the other hand, is an unformatted list of all input transactions to the Water Quality Compliance Subsystem, providing a means to examine every sample. During installation of MSIS, state personnel would use this report to ensure proper functioning of the system. When the reliability of MSIS has been established, the production of the transaction list may be stopped because there is no need to visually examine the data for every sample. If, however, a state chooses to keep producing the list for visual verification of input, it would be advisable for the state to modify the computer program to provide a formatted list.

NOTE: The string of digits printed at the top provides a means for locating data fields in the transaction, corresponding to the eighty columns of a punched card.

WAQCB20R

DATE: [/ /] LIST OF SAMPLES IN VIOLATION OF CHEMICAL AND RADIOLOGICAL STANDARDS PAGE [ ]

REGION: [ ] DISTRICT: [ ]

PUBLIC WATER SYSTEM ID	PUBLIC WATER SYSTEM NAME	TYPE	POPULATION	CONTAMINANT NAME	SAMPLE TYPE	SAMPLE DATE	LAB ID	ANALYSIS DATE	ANALYSIS METHOD	RESULT	MCL	SAMPLES PER AVG	NOTIFY
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[/ /]	[ ]	[/ /]	[ ]	[ ]	[ ]	[ ]	[ ]

(C) AVERAGE = [ ] ****

(B) CHECK SAMPLES NOT RECEIVED

(A) CHECK SAMPLES REQUIRED

EXHIBIT III.10

EXPLANATION

This report is produced following entry of new sample data into the Water Quality Compliance Subsystem. The report serves three purposes:

1. Identify water samples from the distribution system that exceed the maximum contaminant level for chemical and radioactive contaminants. The number of check samples required are indicated in (A).

2. Original samples for which check samples were not yet received are indicated under (B).

3. Identify violations based on average of the original sample and the required check samples (C).

4. Indicate whether a public or state notification should have been made (D).

WAQCB30R

DATE: [/ /]

PUBLIC WATER SYSTEMS NOT COMPLYING WITH SAMPLING REQUIREMENTS
(DISTRIBUTION SYSTEM PLANNING - BACTERIOLOGICAL AND TURBIDITY)

PAGE [ ]

REGION: [ ] DISTRICT: [ ] PERIOD [/ /] TO [/ /] CYCLE [ ]

PUBLIC WATER SYSTEM ID	PUBLIC WATER SYSTEM NAME	SAMPLE TYPE	BACTERIOLOGICAL REQUIRED	BACTERIOLOGICAL RECEIVED	BACTERIOLOGICAL NOT RECV.	BACTERIOLOGICAL FED.	TURBIDITY REQUIRED	TURBIDITY RECEIVED	TURBIDITY NOT RECV.	TURBIDITY FED
[ ]	[ ]	REGULAR	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
	OPTIONAL CHLORINE RESIDUAL CHECK		[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
**	TOTAL FOR DISTRICT		[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
***	TOTAL FOR REGION		[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
****	TOTAL FOR STATE		[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	

EXHIBIT III.11

EXPLANATION

This report shows all public water systems that did not comply with the minimum number of samples required to be taken during the most recent sampling period. The report displays the number of samples required, received, and missing for bacteriological and turbidity analysis. Included for every PWS are also the number of check samples that were required, received, and not received. For PWSs that substitute chlorine residual samples, the number of those received is also listed (but not included in the total per administrative unit). Totals are listed for administrative subunits and the state as a whole. The first (left) total is the count of the PWSs, and the rest of the totals correspond to the column titles.

WAQC040R

DATE XX/XX/XX PUBLIC WATER SYSTEMS IN ARREARS FOR CHEMICAL AND RADIOLOGICAL ANALYSIS PAGE ____

REGION: _____ DISTRICT: _____

PUBLIC WATER SYSTEM NUMBER	PUBLIC WATER SYSTEM NAME	TYPE	POPULATION	CONTAMINANT GROUP/NAME	DATE LAST SAMPLE	SAMPLE DUE DATE	LAG	SAMPLE TYPE	NUMBER
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

			REGULAR SAMPLING	CHECK SAMPLING
**	TOTAL FOR DISTRICT	NUMBER OF PWS IN ARREARS FOR INORGANIC CHEMICAL ANALYSIS		
		ORGANIC CHEMICAL ANALYSIS		
		RADIOACTIVE ANALYSIS		
***	TOTAL FOR REGION	NUMBER OF PWS IN ARREARS FOR INORGANIC CHEMICAL ANALYSIS		
		ORGANIC CHEMICAL ANALYSIS		
		RADIOACTIVE ANALYSIS		
****	TOTAL FOR STATE	NUMBER OF PWS IN ARREARS FOR INORGANIC CHEMICAL ANALYSIS		
		ORGANIC CHEMICAL ANALYSIS		
		RADIOACTIVE ANALYSIS		

EXHIBIT III.12

EXPLANATION

This report lists all public water systems that are in violation of the minimum sampling requirements for chemical and radioactive contaminants, including public water systems that have not submitted check samples. For regular samples, the contaminant group name is listed (such as chemical) because numerous analyses are made from the same sample. For check samples, the individual contaminant name is listed and the number of missing samples is indicated. Totals are provided by administrative subunits, showing by contaminant group, the number of regular and check samples that were not received.

EXHIBIT III.13

WAQC0S0R

DATE: |__/__/__|

SUMMARY OF BACTERIOLOGICAL ANALYSIS

PAGE: |__|

REGION: |_____| DISTRICT: |_____|

PERIOD: |__/__/__| TO |__/__/__|

CYCLE: |__|

PUBLIC WATER SYSTEM ID	PUBLIC WATER SYSTEM NAME	TYPE	POPULATION	ANALYSIS METHOD	SAMPLE TAKEN	CHECK SAMPLE	AVG	MAX	MIN	POSITIVE TUBES	MCL-VIOLATION STATE	MCL-VIOLATION FEDERAL	VIOLATION DURATION	LAB ID	SAMPLE KEY
				FILTER											
				MPN 10											
				MPN 100											
				CHLOR.											
				VIOLATION SUMMARY:											***

		TOTAL PWS	POPULATION	REGULAR SAMPLES	CHECK SAMPLES	VIOLATIONS STATE	VIOLATIONS FEDERAL	VIOLATION DURACTION
**	TOTAL FOR DISTRICT							
***	TOTAL FOR REGION							
****	TOTAL FOR STATE							

EXPLANATION

This report serves two purposes:

- First, it is used to show all the public water systems that violated the bacteriological minimum contaminant levels as determined by the State and the Federal regulations. When used for that purpose, the report relates to the most recent sampling period. It is produced at the end of the applicable compliance cycle and contains information about PWSs required to report for that cycle.

- The second purpose of the report is to show summaries of all samples taken for bacteriological analysis by a selected group of PWSs for a selected period.

WAQCØ6ØR

DATE: [/ /]

SUMMARY OF TURBIDITY ANALYSIS

REGION: [ ] DISTRICT: [ ]

PERIOD: [/ /] TO [/ /]

PAGE: [ ]

CYCLE: [ ]

PUBLIC WATER SYSTEM ID	NAME	TYPE	POPULATION	SRC	SAMPLES-TAKEN REGULAR	SAMPLES-TAKEN CHECK	RESULTS AVG	RESULTS LOW	RESULTS HIGH		CONFIRMED VIOLATIONS MONTHLY AVG	CONFIRMED VIOLATIONS CONSC. DAYS	CONFIRMED VIOLATIONS DURATION	SAMPLE KEY
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	STATE	[ ]	[ ]	[ ]	[ ]
										FEDERAL				

**	TOTAL FOR DISTRICT	[ ]	[ ]	[ ]	[ ]	STATE	[ ] [ ] [ ]
						FEDERAL	
***	TOTAL FOR REGION	[ ]	[ ]	[ ]	[ ]	STATE	[ ] [ ] [ ]
						FEDERAL	
****	TOTAL FOR STATE	[ ]	[ ]	[ ]	[ ]	STATE	[ ] [ ] [ ]
						FEDERAL	

EXHIBIT III.14

EXPLANATION

Like Report WAQCØ5ØR, this report is used for two purposes:

- First, it is used to show all the public water systems that violated the turbidity maximum contaminant level as determined by the State and Federal Regulations. When used for that purpose, the report is produced by the end of the applicable compliance cycle and it relates to the most recent sampling period and to PWSs which are required to report for that cycle.

- The second use of the report is to show the summary of all water samples taken by a selected groups of PWSs during a selected period.

WAQCB70R

DATE [/ /]

PUBLIC WATER SYSTEMS LATE IN SUBMITTING THE MONTHLY OPERATIONS REPORT

PAGE [ ]

REGION: [ ] DISTRICT: [ ]

PUBLIC WATER SYSTEM					
ID	NAME	TYPE	POPULATION	DATE OF LAST REPORT	MONTHS SINCE LAST REPORT
[ ]	[ ]	[ ]	[ ]	[/]	[ ]

EXHIBIT III.15

EXPLANATION

This report shows all public water systems that are late in submitting the required monthly operations report. For each PWS on the list, the month and year of the last report are shown. Also, the number of months passed since the last report was received is shown if it is larger than one month.

WAQCB8BR SUMMARY OF CHEMICAL AND RADIOLOGICAL ANALYSIS

DATE [/ /] PAGE [ ]

REGION: [ ] DISTRICT: [ ] PERIOD [/ /] TO [/ /]

PUBLIC WATER SYSTEM

ID	NAME	TYPE	SRC	POPULATION
[ ]	[ ]	[ ]	[ ]	[ ]

SAMPLE KEY	CONTAMINANT ID	CONTAMINANT NAME	DISPLAY TYPE	SAMPLE TYPE	PERIOD/DATE	LAB ID	MEAN	RESULT HIGH	RESULT LOW	NUMBER SAMPLES	MCL STATE	MCL FEDERAL	VIOLATION STATE	VIOLATION FEDERAL
[ ]	[ ]	[ ]	DETAIL	[ ]	[/ /]	[ ]	[ ]				[ ]	[ ]	[ ]	[ ]
			SUMMARY	[ ]	[/] TO [/]		[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

EXPLANATION

This report shows the results of chemical and radiological analysis for a selected group of public water systems. The user may select the contaminants to be included in the list and the applicable period. Within the period, the user may elect to list all the samples or their summary only. The summary line is always provided, but when the user opts to see only the summary, the last sample taken is also listed.

Most of the information displayed is self-explanatory. Sample Type for a summary line indicates whether the sample is from raw water or a distribution system. In the former case, the sample is not checked for violation. Every sample from the distribution system is checked against the established MCL and if in violation it is marked by an asterisk for state and National standards. The number of samples in violation during the period covered by the list is listed on the summary line.

The report is optional and is produced only upon request.

EXHIBIT III-16

WAQCB98R

DATE [/ /] COMPLIANCE SUMMARY FOR THE PERIOD [/ /] TO [/ /] PAGE [ ]

REGION: [ ] DISTRICT: [ ] CYCLE: [ ]

PUBLIC WATER SYSTEM ID	NAME	TYPE	POPULATION	VIOLATION DATE	TYPE	DURATION	CONTAMINANT	LAB ID	ANALYSIS METHOD	RESULT	REMARKS/SAMPLES RECVD
[ ]	[ ]	[ ]	[ ]	[/ /]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

*	TOTAL VIOLATIONS PER PWS,	VIOLATIONS OF STATE REGULATIONS: [ ]	VIOLATIONS OF FEDERAL REGULATIONS: [ ]
**	TOTAL VIOLATIONS FOR DISTRICT	VIOLATIONS OF STATE REGULATIONS: [ ]	VIOLATIONS OF FEDERAL REGULATIONS: [ ]
***	TOTAL VIOLATIONS FOR REGION,	VIOLATIONS OF STATE REGULATIONS: [ ]	VIOLATIONS OF FEDERAL REGULATIONS: [ ]
****	TOTAL VIOLATIONS FOR STATE	VIOLATIONS OF STATE REGULATIONS: [ ]	VIOLATIONS OF FEDERAL REGULATIONS: [ ]

EXPLANATION

This report lists, by public water system, all the violations during a selected period. Violations of maximum contaminant level and minimum sampling requirements are included in the report. Other violations, such as failure to notify the state or the public of violations or not complying with a compliance schedule, must be entered manually into the system.

This report is produced during the process of updating the Violations File as part of the periodic summary process and contains violations relating to the most recent sampling period.

The report may also be produced for a selected period on request to show all the violations that occured within the period.

Totals are provided by PWS and administrative unit, and show the total number of violations of state and Federal regulations.

For details regarding various types of violations, see Exhibit III.10 through III.14.

EXHIBIT III.17

CHEMICAL AND RADIOLOGICAL SAMPLING SCHEDULING BY PWS

WAQC100R

DATE XX/XX/XX PUBLIC WATER SYSTEMS SCHEDULED FOR SAMPLING FOR CHEMICAL AND RADIOLOGICAL ANALYSIS FOR THE PERIOD MM/YY TO MM/YY PAGE ____

REGION: _____ DISTRICT: _____

PUBLIC WATER SYSTEM NUMBER	PUBLIC WATER SYSTEM NAME	TYPE	POPULATION	CONTAMINANT GROUP/NAME	DATE LAST SAMPLE	SAMPLE DUE DATE	LAB ID	NUMBER OF SAMPLES
____	_____	U	_____	_____	_____	_____	____	U

** TOTAL FOR DISTRICT _____ NUMBER OF PWS SCHEDULED TO SAMPLE FOR INORGANIC CHEMICAL ANALYSIS ____
ORGANIC CHEMICAL ANALYSIS ____
RADIOACTIVE ANALYSIS ____

*** TOTAL FOR REGION _____ NUMBER OF PWS SCHEDULED TO SAMPLE FOR INORGANIC CHEMICAL ANALYSIS ____
ORGANIC CHEMICAL ANALYSIS ____
RADIOACTIVE ANALYSIS ____

**** TOTAL FOR STATE _____ NUMBER OF PWS SCHEDULED TO SAMPLE FOR INORGANIC CHEMICAL ANALYSIS ____
ORGANIC CHEMICAL ANALYSIS ____
RADIOACTIVE ANALYSIS ____

EXHIBIT III.18

EXPLANATION

The purpose of this report is to provide state officials with a list of public water systems which must take samples for chemical or radiological analyses during a selected period. All the required samples, including check samples, are listed for each PWS. Totals of required samples by contaminant group and administrative subunits are also displayed.

WAQC110R

CHEMICAL ANALYSIS REPORT FORM

PUBLIC WATER SUPPLY:
NAME AND ADDRESS: _____

PWS-ID: ☐☐☐☐☐☐☐ (1-7) SAMPLE DATE: ☐☐/☐☐/☐☐ (8-13) CT (14-15) SAMPLE TYPE: DIST. (16) ☐ RAW (17) ☐ SPECIAL (18) ☐ CHECK (19) ☐

SAMPLE COLLECTED BY: _____ AT LOCATION _____

LABORATORY-ID: ☐☐☐☐ (20-24) LABORATORY NAME _____

25-28	FOR ANALYSIS (29)	CONTAMINANT NAME	RESULT (30-33)	ANALYSIS METHOD (34-36)	ANALYZED BY
1010	☐	ARSENIC	__.__ mg/l	☐☐☐	
1020	☐	BARIUM	_.___ mg/l	☐☐☐	
1030	☐	CADMIUM	.____ mg/l	☐☐☐	
1040	☐	CHROMIUM	.____ mg/l	☐☐☐	
1050	☐	FLOURIDE	_._ mg/l	☐☐☐	
1060	☐	LEAD	_._ mg/l	☐☐☐	
1070	☐	MERCURY	.____ mg/l	☐☐☐	
1080	☐	NITRATE (N)	__.__ mg/l	☐☐☐	
1090	☐	SELENIUM	_.___ mg/l	☐☐☐	
1100	☐	SILVER	.____ mg/l	☐☐☐	
2010	☐	ENDRIN	.____ mg/l	☐☐☐	
2020	☐	LINDANE	.____ mg/l	☐☐☐	
2030	☐	METHOXYCHLOR	_.__ mg/l	☐☐☐	
2040	☐	TOXAPHENE	.____ mg/l	☐☐☐	
3510	☐	2,4,-D	__.__ mg/l	☐☐☐	
3520	☐	2,5,5-TP SILVEX	_.___ mg/l	☐☐☐	
4010	☐	RADIUM 226/228	____	☐☐☐	
4020	☐	GROSS ALPHA	____	☐☐☐	
4030	☐	BETA AND PHOTON	____	☐☐☐	

EXPLANATION

This is a turnaround document for reporting results of chemical and radiological analysis. The PWS-ID, name and address, sample date, laboratory-ID, and sample type are preprinted by the computer. In the column headed "For Analysis" an asterisk marks the required analysis.

The report may be produced concurrently with report WAQC100R - Public Water Systems Scheduled for Sampling - and is optional. The same format may be used as an input form, in which case all the information must be filled manually.

This is a prototype form, and it contains the chemical and radioactive contaminants which are regulated by the National Interim Primary Drinking Water Regulations. Each state will probably develop its own reporting form, based on this prototype. A copy of the form may be used to notify the PWS of the results and also to serve as a warning notification.

EXHIBIT III.19

WAQC12ØR

REPORT OF BACTERIOLOGICAL SAMPLE

PUBLIC WATER SUPPLY NAME AND ADDRESS: _____

PWS-ID: _____ (1-7) SAMPLE DATE: __/__/__ (8-13) BS (14-15) TIME OF COLLECTION: __ (16-17)

COLLECTED BY: _____ AT LOCATION _____

TYPE OF SAMPLE: DISTRIBUTION: ☐ (18) RAW: ☐ (19) CHECK: ☐ (20) SPECIAL: ☐ (21)

LABORATORY-ID: _____ (22-26) LABORATORY NAME: _____

NAME OF PERSON: _____

R E S U L T S

COLIFORM COUNT (MEMBRANE FILTER)	NUMBER OF POSITIVE TUBES (FERMENTATION TUBE) PORTION 10mm	PORTION 100mm
☐☐ (27-28)	☐ (29)	☐ (30)

EXHIBIT III.20

EXPLANATION

This report is a turnaround document used for recording the results of bacteriological analyses. The format shown here is a prototype, because each state will determine the format that suits its requirements and data entry capabilities. These forms will be printed as part of the sample scheduling process for PWSs that are required to do less than ten samples in a sampling period, and for PWSs whose reporting requirements flag indicates that they report by individual sample form. The form will be forwarded to the public water system several days before the sampling date. The PWS identification number and name and the sample date will be printed by the computer. The person taking the samples will enter his name, and forward the form attached to the sample bottle to the laboratory. The rest of the data will be filled in by the laboratory which will return the form to the state for data entry and computer processing. Note that a copy of the form may be used to notify the PWS of the result of the analysis.

WAQC13ØR

DATE: XX/XX/XX

REPORT OF BACTERIOLOGICAL SAMPLING AND ANALYSIS

PAGE ____

PWS-ID: _____ PWS NAME: _____ ADDRESS: _____

NUMBER	SAMPLE DATE	COLLECTED BY	AT LOCATION	TIME DIST	SAMPLE TYPE RAW	CHECK	special	ANALYZED BY	FILTER COUNT	POSITIVE 10ml	(Ø1S) TUBES 100ml	LAB-ID
____	__/__/__	_____	_____	____	U	U	U	U	_____	__	U	U	____

EXPLANATION

This report is a turnaround document to be used for entering the results of bacteriological analysis into MSIS. It will be produced as part of the optional sample scheduling process for PWSs that are required to take ten samples or more and for PWSs whose reporting requirements flag shows that they report multiple samples on a single document. For each PWS, sample date and sequential number will be printed by the computer. The list will be forwarded to the PWS several days prior to the beginning of the sampling period and copied. The PWS will send one copy to the laboratory.

At the end of the sampling period, the list will be sent to the state for data entry. This turnaround document is best suited for use by PWSs which have to make large numbers of analyses per month using their own laboratory.

EXHIBIT III.21

SUMMARY OF BACTERIOLOGICAL MONITORING

WAQC140R

PWS-ID: [ ][ ][ ][ ][ ][ ][ ] (1-7)

PWS NAME: _____

PWS ADDRESS: _____

SAMPLING PERIOD: _____ TO _____

REPORTING DATE: MO. DAY YEAR [ ][ ][ ][ ][ ][ ] (8-13)

PART I: BACTERIOLOGICAL ANALYSIS

ANALYSIS METHOD		NO. OF SAMPLES TAKEN */	AVERAGE	MAXIMUM	MINIMUM	NO. OF POSITIVE TUBES	NUMBER OF SAMPLES VIOLATING: STATE MCL	NUMBER OF SAMPLES VIOLATING: FED. MCL	LONGEST VIOLATION DURATION (DAYS)	LABORATORY ANALYZING MOST SAMPLES **/ ID	LABORATORY ANALYZING MOST SAMPLES **/ NAME
	(14-15)	(16-19)	(20-21)	(22-23)	(24-25)		(30-32)	(33-35)	(36-38)	(39-43)	
DUP 1-13 MEMBRANE FILTER	[M][F]	[ ][ ][ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]		[ ][ ][ ]	[ ][ ][ ]	[ ][ ][ ]	[ ][ ][ ][ ][ ]	____ _____
DUP 1-13 FERMENTATION TUBE 10mm	[F][1]	[ ][ ][ ][ ]	[ ][ ] (21)	[ ][ ] (23)	[ ][ ] (25)	[ ][ ][ ][ ]	[ ][ ][ ]	[ ][ ][ ]	[ ][ ][ ]	[ ][ ][ ][ ][ ]	_____
DUP 1-13 FERMENTATION TUBE 100mm	[F][2]	[ ][ ][ ][ ]	[ ][ ] (21)	[ ][ ] (23)	[ ][ ] (25)	[ ][ ][ ][ ]	[ ][ ][ ]	[ ][ ][ ]	[ ][ ][ ]	[ ][ ][ ][ ][ ]	_____
DUP 1-13 TOTAL	[T][B] (14-15)	[ ][ ][ ][ ] (16-19)	MINIMUM NUMBER OF SAMPLES TO BE TAKEN THIS PERIOD				[ ][ ][ ] (20-22)	[ ][ ][ ] (23-25)	[ ][ ][ ] (26-28)	LONGEST VIOLATION	

PART II: CHLORINE RESIDUAL SAMPLING AND ANALYSIS

NUMBER OF SAMPLES TAKEN: [ ][ ][ ][ ] (30-34)

NUMBER OF SAMPLES CONTAINING LESS THAN 0.2 mg/h: [ ][ ][ ][ ] (35-39)

NUMBER OF CONFIRMED VIOLATIONS: [ ][ ][ ][ ] (40-44)

LONGEST DURATION OF VIOLATION: [ ][ ] (45-47)

PART III: GENERAL INFORMATION

	YES	NO
WERE CHECK SAMPLES TAKEN TO CONFIRM VIOLATIONS, AS REQUIRED BY THE REGULATIONS?	[ ] (48)	[ ] (49)
WAS THE STATE NOTIFIED OF VIOLATIONS, AS REQUIRED BY THE REGULATIONS?	[ ] (50)	[ ] (51)
WAS THE PUBLIC NOTIFIED WHENEVER REQUIRED BY THE REGULATIONS?	[ ] (52)	[ ] (53)

SIGNED: _____ NAME AND TITLE: _____

DATE: ____/____/____

*/ REGULAR SAMPLES TAKEN FROM THE DISTRIBUTION SYSTEM

**/ CERTIFIED LABORATORY ONLY

WAQC14ØR

EXPLANATION

This report is a turnaround document to be used for entering summary of bacteriological analyses. It is produced as part of the optional sample scheduling process for PWSs whose reporting requirements flag indicates that they may report to the state a summary of their bacteriological monitoring. The same form may be used as an input form only.

Note that this is a prototype form, each state that decides to use it will design its own form based on the prototype.

EXHIBIT III.22 (Con't.)

WAQC15ØR

DATE: |_/_/_| REPORT OF TURBIDITY SAMPLING AND ANALYSIS

PWS-ID: |_____| PWS NAME: |_____|

ADDRESS: |_____| |_|_____|

SAMPLE DATE	SAMPLE TIME	SAMPLE TYPE		SAMPLE RESULT
		REGULAR	REPEAT	
|_/_/_| |_|			

EXPLANATION

This report is a turnaround document used for reporting the results of individual turbidity analysis. It is produced as part of the optional sample scheduling process for PWSs using surface water whose reporting requirement flag indicates that they must report individual samples results. The list will be produced several days before the beginning of the month, and the PWS-ID, name, address, and sample date will be preprinted by the computer. A line will be printed for each day in the coming month, and ten lines will be provided to list results of check samples.

EXHIBIT III.23

SUMMARY OF TURBIDITY MONITORING

WAQC16ØR

PWS-ID: [ ][ ][ ][ ][ ][ ][ ] (1–7)

PWS NAME: _____

PWS ADDRESS: _____

SAMPLING PERIOD: _____ TO _____

REPORTING DATE: [7 /] [IS] (8-13, 14-15)

PART I: SAMPLING DATA

NUMBER OF DAILY SAMPLES TAKEN: [ ][ ][ ] (16-18) MINIMUM NUMBER OF SAMPLES TO BE TAKEN: [ ][ ] (19-21) NUMBER OF REPORT SAMPLES TAKEN: [ ][ ][ ] (22-24)

NUMBER OF CONFIRMED VIOLATION (STATE MCL): [ ][ ][ ] (25-27) NUMBER OF SAMPLES VIOLATING THE FEDERAL MCL: [ ][ ][ ] (28-30)

NUMBER OF INSTANCES WHEN THE AVERAGE OF CONSECUTIVE SAMPLES IS LARGER THAN 5TU: [ ][ ][ ] (31-33)

MINIMUM TREATMENT: [ ][ ] (34-35) TU MAXIMUM MEASUREMENT: [ ][ ] (36-37) AVERAGE OF MEASUREMENTS: [ ][ ] (38-39) (INCLUDING REPEAT SAMPLES)

LONGEST DURATION OF A VIOLATION: [ ][ ][ ] (40-42) DAYS

PART II: GENERAL INFORMATION

	YES	NO
WERE REPEAT SAMPLES TAKEN TO CONFIRM VIOLATIONS, AS REQUIRED BY THE REGULATIONS?	[ ] 43	[ ] 44
WAS THE STATE NOTIFIED OF VIOLATIONS, AS REQUIRED BY THE REGULATIONS?	[ ] 45	[ ] 46
WAS THE PUBLIC NOTIFIED WHENEVER REQUIRED BY THE REGULATIONS?	[ ] 47	[ ] 48

SIGNED: _____ NAME AND TITLE _____

DATE ___/___/___

EXPLANATION

This report is a turnaround document used for reporting a summary of turbidity monitoring during a month. It is produced as a part of the optional sample scheduling process for public water samples using surface water whose reporting requirements flag indicates that they may report a monthly summary for turbidity monitoring.

Note that this is a prototype of the report and that each state can design its own format based on this prototype.

REGULATIONS SUBSYSTEM

EXHIBIT	ID	NAME	FREQUENCY
III.25	REGS@1@R	REGULATIONS TABLE PRINTOUT - CHEMICAL CONTAMINANTS	AFTER EACH UPDATE
III.26	REGS@2@R	REGULATIONS TABLE PRINTOUT - TURBIDITY AND BACTERIOLOGICAL CONTAMINANTS	AFTER EACH UPDATE
III.27	REGS@3@R	REGULATIONS TABLE PRINTOUT - BACTERIOLOGICAL SAMPLING REQUIREMENTS	AFTER EACH UPDATE

REGS010R

DATE [/ /]

REGULATIONS TABLE IMAGE - CHEMICAL AND RADIOACTIVE CONTAMINANTS

PAGE [ ]

ID	CONTAMINANT NAME	STATE/ FEDERAL	REASON CODE	MCL	UNITS	VERIFICATION LIMITS	SPECIAL COMP	DCAL	AVERAGE SAMPLING	SEASONAL CODE	CHECK PERIOD	PWS TYPE	EFFECTIVE DATE	WATER SOURCE	YEARS TO 1ST SAMPLE	SAMPLING FREQUENCY
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ] [ ]	[ ]	[ ]	[ ]	[ ]	[ ]	COMMUNITY	[/ /]	GROUND	[ ]	[ ]
														SURFACE	[ ]	[ ]
												NON-COMM	[/ /]	GROUND	[ ]	[ ]
														SURFACE	[ ]	[ ]

EXHIBIT III.25

EXPLANATION

This report shows all of the data elements which are maintained in the Regulations Table File relating to chemical contaminants. This list is in sequence by contaminant identification number. For each contaminant the state standards and the Federal standards are listed. The purpose of this report is to serve as a verification aid. It is produced each time the Regulations Table is changed and all data elements must be verified visually for accuracy.

REGS020R REGULATIONS TABLE PRINTOUT - TURBIDITY AND BACTERIOLOGICAL CONTAMINANTS

DATE [/ /] REGULATIONS TABLE IMAGE - TURBIDITY AND BACTERIOLOGICAL

STATE/FEDERAL [ ] REGULATIONS

TURBIDITY:

REGULATIONS LEVEL: MCL FOR MONTHLY AVERAGE: [ ] MCL FOR CONSECUTIVE SAMPLES: [ ] NUMBER OF CONSECUTIVE SAMPLES: [ ]

EFFECTIVE DATE: [/ /] FREQUENCY FOR COMMUNITY PWS: [ ] NON-COMMUNITY PWS: [ ] SURFACE ONLY: [ ] INCLUDE REPEAT: [ ]

BACTERIOLOGICAL:

REGULATION LEVEL: EFFECTIVE DATE [/ /]

	ANALYSIS METHOD	UNIT	MCL FOR SINGLE SAMPLE	MCL FOR MONTHLY AVERAGE	PERCENT OF SAMPLES	MCL FOR PERCENT
	MEMBRANE FILTER	COLIFORM	[ ]	[ ]	[ ]%	[ ]
	FERMENTATION TUBE 10	POSITIVE TUBES	[ ]	[ ]	[ ]%	[ ]
	FERMENTATION TUBE 100	POSITIVE TUBES	[ ]	[ ]	[ ]%	[ ]

CHLORINE RESIDUAL NUMBER OF SAMPLES IN LIEU OF 1 REGULAR SAMPLE: [ ]

MAXIMUM PERCENT OF REGULAR SAMPLES: [ ]%

MINIMUM CHLORINE LEVEL: [ ]

FREQUENCY OF MONITORING: COMMUNITY PWS - SEE TABLE

NON-COMMUNITY PWS EFFECTIVE DATE [/ /] SEASONAL SAMPLING: [ ]

MONITORING PERIOD: [ ] SAMPLES PER PERIOD: [ ]

EXHIBIT III.26

EXPLANATION

This report shows the parameters of regulations for turbidity and bacteriological contaminants, except for sampling requirements by population size which are shown in the next report. It lists the parameters exactly as they are stored in the Regulations Table. The report consists of two pages, one containing the state standards and the other containing the Federal standards. The report is produced each time the Regulations Table is updated, and its purpose is to provide a means of visually verifying all parameters.

REGULATIONS TABLE PRINTOUT - BACTERIOLOGICAL SAMPLING REQUIREMENTS

REGS030R

DATE [__/__/__] REGULATIONS TABLE IMAGE

STATE/FEDERAL [_____] REGULATIONS

SAMPLING REQUIREMENTS FOR COMMUNITY PWS

POPULATION SERVED FROM	TO	MINIMUM NUMBER OF SAMPLES
[_____]	[_____]	[__]
[_____]	[_____]	[__]
[_____]	[_____]	[__]

EXPLANATION

This report shows the minimum monthly sampling requirements for bacteriological analysis for community public water systems, based on the size of the population served. State and Federal regulations are listed. The list is produced automatically each time the Regulations Table is updated, and is used for visual verification of the data.

VARIANCES AND EXEMPTIONS SUBSYSTEM

LIST OF REPORTS

EXHIBIT	ID	NAME	FREQUENCY
III.28	VAEXØ1ØR	PROJECTED MILESTONES REPORT	AS REQUIRED
III.29	VAEXØ2ØR	LATE MILESTONES REPORT	AS REQUIRED
III.30	VAEXØ3ØR	CONDENSED LIST	AS REQUIRED
III.31	VAEXØ4Ø$	CASE HISTORY	AS REQUIRED

PROJECTED MILESTONES REPORT

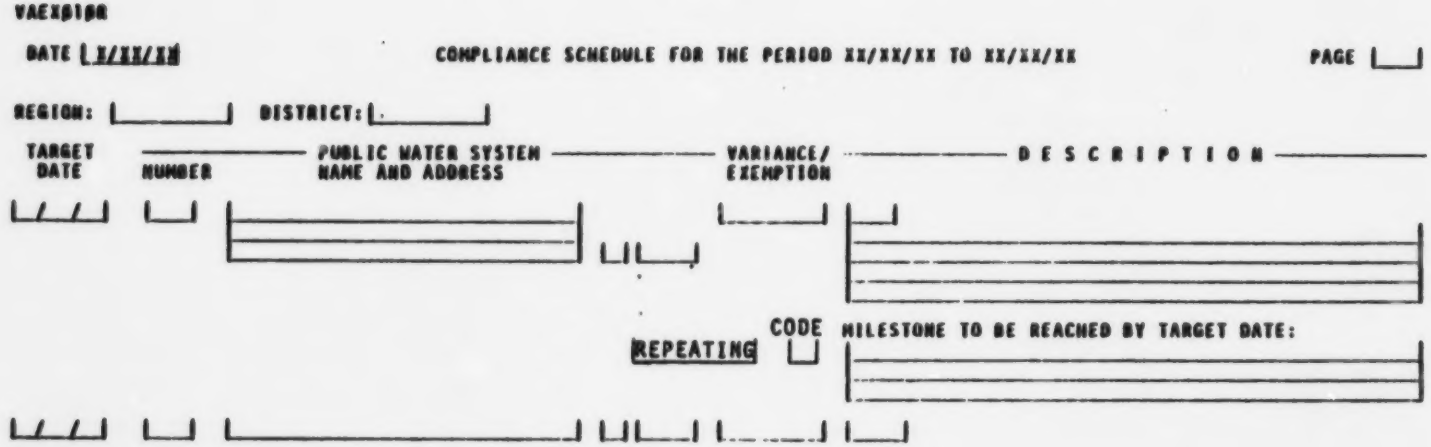


EXHIBIT III.28

EXPLANATION

This report shows the schedule of milestones in variances and exemptions which must be completed within a specific period. The report lists every public water system that must reach a milestone within the period. The list is printed in sequence by expected completion date (target date). For each PWS, the explanation for the variance or exemption is listed, as well as the description of the milestone. When the milestone repeats (e.g., must be accomplished again and again, such as notifying the public every three months), it is indicated as a "Repeating" milestone.

This report is produced on request to help state officials monitor public water systems that are required to follow a compliance schedule as a condition of a variance or exemption.

VAEX020R

DATE XX/XX/XX COMPLIANCE SCHEDULE IN ARREARS PAGE ___

REGION: _____ DISTRICT: _____

TARGET DATE	LAG (MONTHS)	PUBLIC WATER SYSTEM ID	PUBLIC WATER SYSTEM NAME AND ADDRESS	VARIANCE/ EXEMPTION	DESCRIPTION
_____	___	_____	_____	_____	_____

REASON: _____

REPEATING ___ CODE MILESTONE TO BE REACHED BY TARGET DATE: _____

* TOTAL FOR DISTRICT _____ PWS IN ARREARS: ___

*** TOTAL FOR REGION _____ PWS IN ARREARS: ___

**** TOTAL FOR STATE _____ PWS IN ARREARS: ___

EXHIBIT III.29

EXPLANATION

This report lists public water systems that failed to notify the state of the completion of scheduled milestones by the required target date. For every PWS listed, the report shows the missed target date and the lag time in months in addition to the description of the variance or exemption and the scheduled milestone. The list will be sorted by target date so that those PWSs which are lagging the most will appear first. A repeating milestone is identified by the word "REPEATING".

This report, produced on request, is designed to help identify violations of the compliance shcedule.

CONDENSED LIST

VAEXØ3ØR

DATE [/ /] VARIANCES AND EXEMPTIONS CONDENSED LIST PAGE [ ]

ID	REF ID	V/E	EFFECT. DATE	EXPIR. DATE	STATUS	CONT.	MCL	TREATMENT	REASON	LAST UPDATE	NEXT TARGET	PWS ID	PWS NAME
[ ]	[ ]	[ ]	[/ /]	[/ /]	[ ]	[ ]	[ ]	[ ]	[ ]	[/ /]	[/ /]	[ ]	[ ]

EXPLANATION

This is a quick reference list of variances and exemptions, showing the key data elements, in a V & E record: effective and expiration dates, related contaminant, treatment, next target date, etc. The list may be obtained for a selected group of V & E's in a specified sort sequence. For example, a request may be made to select all exemptions relating to a particular treatment and to list them in sequence by public water system identification number.

CASE HISTORY

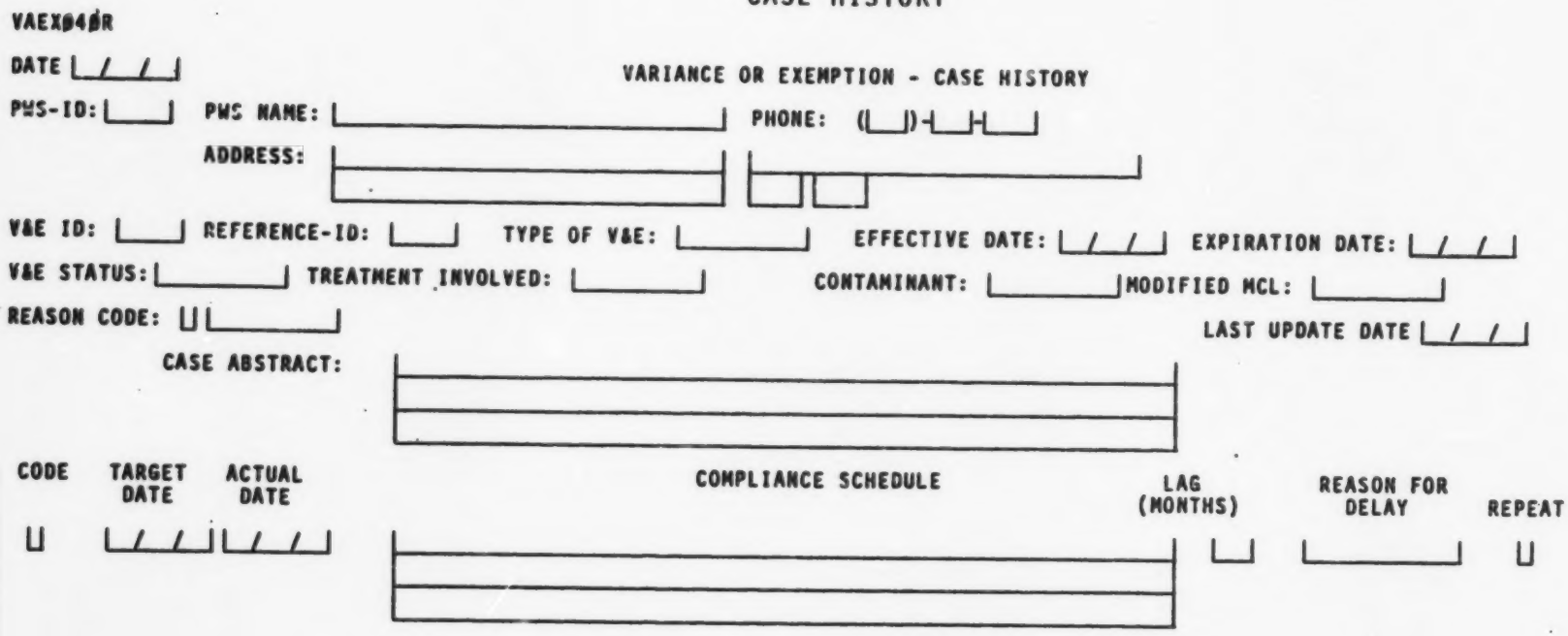


EXHIBIT III.31

EXPLANATION

This report lists all the data elements which are maintained in a variance or exemption record, including the narrative explanation and all milestones in the compliance schedule. For repeating milestones, the last target date and actual date are displayed. The case history has several uses:

- To list the status of V & E cases which were deleted from the V & E file.
- To list all V & E records prior to the annual reporting to EPA.
- To obtain a case history of a selected group of V & E records; for example, to select all variances relating to the maximum contaminant level for barium.

SANITARY SURVEY SUBSYSTEM

LIST OF REPORTS

EXHIBIT	ID	NAME	FREQUENCY
III.32	SRVYØ1ØR	PRIORITY LISTING	AS REQUIRED
III.33	SRVYØ2ØR	RESOURCE CONDENSED SCHEDULE	AS REQUIRED

SRVYB1DR

PRIORITY LISTING

DATE [/ /] PUBLIC WATER SYSTEMS BY PRIORITY FOR SANITARY SURVEY PAGE [ ]

REGION: [ ] DISTRICT: [ ]

SELECTION WEIGHTS: PWS TYPE - [ ] POPULATION SERVED - [ ] COMPLIANCE [ ] LAST SURVEY DATE - [ ]

PUBLIC WATER SYSTEM						
NUMBER	NAME	ADDRESS	TYPE	POPULATION	LAST SURVEY DATE	SELECTION KEY
[ ]	[ ]	[ ]	[ ]	[ ]	[/ /]	[ ]

EXPLANATION

The purpose of this report is to help state administrators select public water system for periodic sanitary surveys according to specific priority factors. The report shows key data elements for every PWS that was selected for a survey using a specific selection formula. By assigning different weights to the selection factors -- PWS type, size of the population served, time passed since last survey, and compliance history -- the state can arrive at the formula that best suits its needs and its manpower constraints.

RESOURCE CONSTRAINED SCHEDULE

SRVY020R

DATE [/ /] PUBLIC WATER SYSTEMS SCHEDULED FOR SANITARY SURVEY PAGE [ ]

REGION: [ ] DISTRICT: [ ] PERIOD [/ /] TO [/ /] SURVEYING CAPACITY

SELECTION WEIGHTS: PWS TYPE - [ ] POPULATION SERVED - [ ] COMPLIANCE - [ ] LAST SURVEY DATE - [ ]

PUBLIC WATER SYSTEM						
NUMBER	N A M E	A D D R E S S	TYPE	POPULATION	LAST SURVEY DATE	SELECTION KEY
[ ]	[ ]	[ ]	[ ]	[ ]	[/ /]	[ ]

EXPLANATION

This report lists the public water systems that were selected for sanitary surveys based upon a selection formula that takes into account the PWS type, the size of the population served, time since last survey, and the compliance history of the PWS. The records are listed in order of the assigned priority for survey, and may also be obtained in sequence by administrative subunits. The number of PWSs to be selected is determined by the administrative subunit's capacity for performing sanitary surveys during a specified period. The records of all the PWSs that appear on the list are also used to print report PWSI040R which is the turnaround docuemnt containing all the data elements present in the PWS record.

ENAC010R

DATE [/ /] ENFORCEMENT ACTION CASE HISTORY, CASE REFERENCE: [ ]

CASE TITLE: [ ] REASON FOR LISTING [ ] ← NEW RECORD / REQUEST / SELECTION

CASE-ID: [ ] ACTION DATE: [/ /] IS CASE CLOSED? [ ] PWS-ID: [ ] PWS NAME: [ ]

PLAINTIFF TYPE AND NAME: [ ] [ ] DATE OF LAST UPDATE: [/ /] PWS-ID: [ ]

DEFENDANT TYPE AND NAME: [ ] [ ] LEGAL PROCEDURE STATUS: [ ]

VIOLATIONS INVOLVED:	DATE	TYPE	CONTAMINANT	ABSTRACT AND REMARKS
	[/ /]	[ ]	[ ]	[ ]

MILESTONE HISTORY:	MILESTONE	TARGET DATE	ACTUAL DATE		
	[ ]	[/ /]	[/ /]	CONSENT NUMBER AND DATE:	[ ] [ ]
				PERMIT NUMBER AND DATE:	[/ /] [/ /]

EXHIBIT III.34

EXPLANATION

This report lists all the data that is maintained in a selected group of enforcement action records. The report provides information about the persons involved, case abstract, case status, and history of events (milestones). Its purpose is to help those responsible for enforcement actions to review the case and, if necessary, to serve as a guideline to the legal evidence that must be compiled. Selection criteria may be applied. For example, one selection could be all cases with action date not later than 8/15/77 and dealing with failure to notify the public.

This report would be produced automatically after the update process for all newly created enforcement action records, and could also be produced for specific actions as required, such as submitting enforcement actions reports to EPA.

ENFORCEMENT ACTIONS SUBSYSTEM

LIST OF REPORTS

EXHIBIT	ID	NAME	FREQUENCY
III.34	ENACØ1ØR	CASE HISTORY	AFTER EACH UPDATE AND AS REQUIRED
III.35	ENACØ2ØR	CONDENSED LIST	AS REQUIRED

ENAC020R

DATE [_/_/_] LIST OF ENFORCEMENT ACTIONS CASES FOR THE PERIOD: [_/_/_] TO [_/_/_] PAGE [__]

CASE			PLAINTIFF	DEFENDANT	ACTION	CASE	PWS-ID	VIOLATIONS		
.ID	REFERENCE	TITLE	TYPE	TYPE	DATE	CLOSED		DATE	TYPE	CONTAMINANT
[____]	[_____]	[_____]	[_____]	[_____]	[_/_/_]	[_]	[____]	[_/_/_]	[_____]	[_____]

NUMBER OF ACTIONS FOR PWS: [___]

EXPLANATION

The list of Enforcement Action Cases shows, for a selected group of records, key data elements such as legal reference, action date, legal status, etc. The list can be produced in a variety of sequences, and may be used as a quick reference list or for selection purposes. Total number of actions per PWS is provided whenever the sort option is by PWS-ID. For example, suppose that the state wishes to take stricter measures against public water systems to which warning letters were sent during the last four months. In this example, the selection criteria might be: select all records in which the defendant is a PWS, the action type is a letter, the case is still open, and the action date was during the last four months (say, no later than 1/15/78 and not earlier than 9/15/77); the list is to be sorted by action date and PWS-ID. The resulting report can be used to evaluate the number of PWSs involved, the number of letter sent to each PWS, and to select the proper course of action.

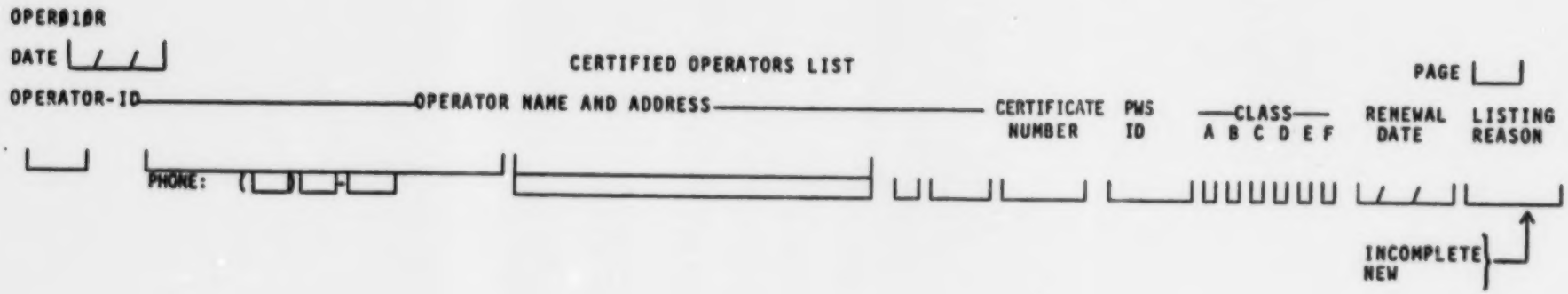
The same report can be used to report to EPA regarding enforcement actions taken by state.

EXHIBIT III.35

OPERATORS AND MAILING SUBSYSTEM

LIST OF REPORTS

EXHIBIT	ID	NAME	FREQUENCY
III.36	OPERØ1ØR	CERTIFIED OPERATORS LIST	
III.37	OPERØ2ØR	MAILING LIST	



EXPLANATION

This report shows all the data elements which are maintained in a certified operator record on the Operators and Mailing File. There are six types of operator classes which a state may define according to its operator certification program. Each of the class codes may contain multiple codes within the class. The report will be printed for three reasons:

- All new records are listed so that the data may be visually verified.
- All records which do not contain an address are listed as "incomplete".
- Listing upon request. This option is used in conjunction with selection criteria. For example, in order to schedule training classes, one may request to list all operators in classes A, B, or or C, and sort the report by zip code.

EXHIBIT III.36

EXHIBIT III.37

EXPLANATION

This report shows all the data elements maintained in an address record of the Operators and Mailing File other than certified operators. The report is used for three purposes:

- To list new records that were added during an update process, for visually verifying the data.
- To list records which contain incomplete information (e.g., a zip code).
- To provide a reference distribution list sorted in various ways - by addressee identification by zip code, by addressee name, etc.

IV. CODE TABLES

EXHIBIT IV.1

CONTAMINANT CODE TABLE

CONTAMINANT CODE

XYYY

X-GROUP CODE

YYY-INDIVIDUAL CONTAMINANT CODE

X-VALUES

Ø - NOT GROUPED

1 - INORGANIC CHEMICALS

2 - ORGANIC CHEMICALS AND PESTICIDES

3 - MICROBIOLOGICAL

4 - RADIOACTIVE

9 - OTHER

Ø - NOT GROUPED

ØØ1Ø - TURBIDITY

ØØ2Ø - CHLORINE

1 - INORGANIC CHEMICALS CONTAMINANTS

1Ø1Ø - ARSENIC

1Ø2Ø - BARIUM

1Ø3Ø - CADMIUM

1Ø4Ø - CHROMIUM

1Ø5Ø - FLUORIDE

1Ø6Ø - LEAD

1Ø7Ø - MERCURY

1Ø8Ø - NITRATE (N)

1Ø9Ø - SELENIUM

11ØØ - SILVER

2 - PESTICIDES AND ORGANIC CHEMICALS

2Ø1Ø - ENDRIN

2Ø2Ø - LINDANE

2Ø3Ø - METHOXYCHLOR

2Ø4Ø - TOXAPHENE

EXHIBIT IV.1 (Con't.)

2510 - 2,4,-D
2520 - 2,5,5-TP SILVEX

3 - MICROBIOLOGICAL

3010 - COLIFORM

4 - RADIOACTIVE CONTAMINANTS

4010 - COMBINED RADIUM 226/RADIUM 228
4020 - GROSS ALPHA PARTICLE ACTIVITY
4030 - BETA PARTICLES AND PHOTON RADIOACTIVITY

EXHIBIT IV.2

ANALYSIS METHOD CODE TABLE

The Analysis Method Code is structures as XYY. where -
X = Group Code
YY - Individual analysis method code
corresponding to the contaminant group code (See Exhibit IV.1) and having the same values.

1-INORGANIC CHEMICALS

1Ø1 - Atomic Absorption Method. Note that there are several analysis methods called by this name. The code designates all of those into one category. The analysis method code is therefore significant only when related to a specific contaminant.

1Ø2 - Flameless Atomic Absorption Method. (Mercury)

1Ø3 - Brucine Coloritmetic Method (Nitrate)

1Ø4 - Electrode Methale (Flouride)

2-PESTICIDES AND ORGANIC CHEMICALS

2Ø1 - Gas Chromatology Method

EXHIBIT IV.3

VIOLATION TYPE CODE

1 - MCL

2 - Regular Sampling Requirements

3 - Check (Repeat) Sampling Requirements

4 - State Notification

5 - Public Notification

6 - Treatment Techniques

7 - Compliance Schedule Under a Variance or Exemption

8 - Record Keeping

EXHIBIT IV.4

TREATMENT METHOD TABLE

001 - Aeration

002 - Prechlorination

003 - Coagulation

004 - Sedimentation

005 - Filtration

006 - Corrosion Control

007 - ~~Softening~~ Lime softening

008 - Taste Control

009 - Color Control

010 - Iron Removal

011 - Ammoniation

012 - Fluoridation

013 - Fluoride Removal

014 - Disinfection

015 - Ion exchange softening

999 - Other